TOOLS OF CHANGE

PROVEN METHODS FOR PROMOTING ENVIRONMENTAL CITIZENSHIP

WORKBOOK

National Round Table on the Environment and the Economy

Table ronde nationale sur l'environnement et l'économie

Jay Kassirer, Cullbridge™ Marketing and Communications
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PROVEN METHODS FOR PROMOTING ENVIRONMENTAL CITIZENSHIP

WORKBOOK

including

Planning Guide, Tools of Change and Case Studies

Jay Kassirer, Cullbridge™ Marketing and Communications
Doug McKenzie-Mohr, St. Thomas University

The views expressed herein are those of the authors and editors, and do not necessarily represent those of the National Round Table or its members.

Mandate

The National Round Table on the Environment and the Economy (NRTEE) was created to "play the role of catalyst in identifying, explaining and promoting, in all sectors of Canadian society and in all regions of Canada, principles and practices of sustainable development." Specifically, the agency identifies issues that have both environmental and economic implications, explores these implications, and attempts to identify actions that will balance economic prosperity with environmental preservation.

At the heart of the NRTEE's work is a commitment to improve the quality of economic and environmental policy development by providing decision makers with the information they need to make reasoned choices on a sustainable future for Canada. The agency seeks to carry out its mandate by:

- advising decision makers and opinion leaders on the best way to integrate environmental and economic considerations into decision making;
- actively seeking input from stakeholders with a vested interest in any particular issue and providing a neutral meeting ground where they can work to resolve issues and overcome barriers to sustainable development;
- analyzing environmental and economic facts to identify changes that will enhance sustainability in Canada; and
- using the products of research, analysis and national consultation to come to a conclusion on the state of the debate on the environment and the economy.

The round table process is a unique form of stakeholder consultation, permitting progress on diverse issues with an environmental/economic interface. The process itself is of value in overcoming entrenched differences. At the same time, the outcomes for each program emphasize broad policy development and provide specific recommendations for action.

Members of the National Round Table on the Environment and the Economy

The NRTEE is composed of a Chair and up to 24 distinguished Canadians. These individuals are appointed by the Prime Minister as opinion leaders representing a variety of regions and sectors of Canadian society including business, labour, academia, environmental organizations, and First Nations. Members of the NRTEE meet as a round table four times a year to review and discuss the ongoing work of the agency, set priorities, and initiate new activities.

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Preface

Social marketing and sustainable economic development are two approaches not traditionally linked. Over the past decade, however, community-based projects which use social marketing techniques to achieve sustainable development objectives have grown in number across North America. Documenting and analyzing the varied approaches used is a major first step in encouraging more widespread acceptance and use of innovative, community-led mechanisms to achieve energy and resource conservation, reduce pollution and prevent unnecessary waste.

The Education Committee of the National Round Table on the Environment and the Economy (NRTEE) is pleased to present *Tools of Change: Proven Methods for Promoting Environmental Citizenship*. A unique, practical resource for communities wishing to take up the challenge of promoting sustainable development at a grassroots level, the guide was developed by Jay Kassirer and Doug McKenzie-Mohr. The Education Committee of the NRTEE, which is mandated to increase public awareness and understanding about the principles and practices of sustainability, provided support for the publishing and distribution of this important addition to Canada's inventory of innovative and well-researched tools for sustainable development.

The guide provides a wealth of information and ideas that challenge the traditional moulds of thinking. The Education Committee of the National Round Table on the Environment and the Economy encourages community groups and decision makers to use this guide as a tool for achieving sustainable development goals.

Elizabeth Crocker
Chair, Education Committee
National Round Table on the Environment and the Economy

National Round Table on the Environment and the Economy Education Committee

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Irena Mandaric, Ron Levi, Kelly Kilpatrick and Wendy Walker helped with researching and writing the case studies. Sue McKenzie-Mohr helped at various stages from preliminary research to final editing. Many community organizations served as case studies and participated in our research. The following, in particular, helped us refine the Workbook, by organizing the first five workshops based on this Workbook:

- The Clean Nova Scotia Foundation
- The Greater Vancouver Regional District
- The Recycling Council of Alberta
- The Recycling Council of Ontario
- The Regional Municipality of Ottawa-Carleton

Many individuals reviewed drafts of the Workbook and provided valuable suggestions for improvement:

- Lisa Alderson (Greater Vancouver Regional District)
- Ben Bennett (Association of Municipal Recycling Coordinators)
- Mike Birett (Regional Municipality of Waterloo)
- Janet Connor (Health Canada)
- Barbara Czech (Canadian Council of Ministers of the Environment)
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- Virginia Swinson (City of Peterborough)
- Kevin Wylie (Regional Municipality of Ottawa-Carleton)

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- Canada Mortgage and Housing Corporation (CMHC)
- Ontario Ministry of Environment and Energy (MOEE)

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- Active Living — Go For Green!
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- National Round Table on the Environment and the Economy (NRTEE)
- Ontario Hydro
- Tetra Pak Canada Inc.

Introduction

This Workbook, founded on the principles of community-based social marketing, offers specific tools and case studies for helping people take actions and adopt habits that are more environmentally sustainable. This Workbook will help you include in your program the best practices of many other environmental programs — practices that have already been successful in changing people's behaviour.

The Workbook is divided into three sections and is designed so that you may start at the place that meets your particular needs. A "Planning Guide" offers detailed steps for planning your program. Each step is accompanied by specific examples from other programs, as well as questions and suggestions to help you apply the step to your particular circumstances. The second section, "Tools of Change," provides similar step-by-step instructions for using each of the Tools of Change. The third section, "Case Studies," will show you the tools in action, and will help you learn from other communities and develop ideas for your own program.

How to use this Workbook

Start with the ...	If you want to ...
Planning Guide	▶ plan a new program ▶ improve the impact or financial attractiveness of your program ▶ choose the most appropriate tools for your situation ▶ review steps to include in your program's terms of reference
Tools of Change	▶ plan, implement or coach others to use the tools ▶ earn more about specific tools ▶ find programs that have used specific tools
Case Studies	▶ see how the Tools of Change work in practice ▶ learn from other programs ▶ justify your program objectives and approach

Tip: We recommend that you scan the Tools of Change and Case Studies before using the Planning Guide for the first time. The Tools and Case Studies are all arranged alphabetically so you can find them easily. A series of "locater charts" at the back of the Workbook will also help you locate specific Tools or Case Studies, or see them grouped according to geographic location and topic area.

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A Tool Kit for Promoting Environmental Citizenship

When asked, people often say that they will pay more for green products, they will compost their organic wastes, they will walk more and drive less, and so on. And I believe they usually mean it. But when we see what products people buy, what garbage they set out for collection, and how they get from place to place — all too often we find that these same people are making other choices.

Most people would be willing to lead a life that is much more sustainable, but a wide range of obstacles get in the way. This Workbook presents step-by-step guidance for minimizing these obstacles and motivating people to overcome the ones that remain. It's a kit of tried and proven tools of change that can increase the impact of your programs and improve their financial attractiveness.

The idea for this book developed when a group of us at West End Community Ventures were launching Ottawa-Carleton's Green Community organization, EnviroSense. We wanted to better our understanding of how to improve our own program's impact. In securing funding from the Ontario and federal governments, we were encouraged — and enabled — to step back from the day-to-day urgencies of our particular program and to take a broader and longer view.

This Workbook presents what we learned over a two-year period. We studied residential programs from communities across North America, including 10 that we assisted directly. We also developed further the community-based social marketing framework that had been published by Doug McKenzie-Mohr, in his *Promoting a Sustainable Future: An Introduction to Community-Based Social Marketing.*

We have included a form at the end of this Workbook for you to give us your feedback or your suggestions on other tools or cases — please do! By sharing experiences in this way we can help one another climb the learning curve more quickly toward sustainability.

Jay Kassirer, Ottawa, 1997

What is Community-Based Social Marketing?

A sustainable community is in large part the result of the actions of each of its members. When members of a community use resources wisely — by recycling or taking mass transit, for example — the community moves toward sustainability. To promote sustainability, then, it is essential to know how to encourage individuals to adopt lifestyles that are resource efficient.

Increasingly, those who develop and deliver programs to promote sustainability are turning to community-based social marketing for assistance. Community-based social marketing emphasizes direct contact among community members and the removal of structural barriers, since research suggests that such approaches are often most likely to bring about behaviour change.

Community-based social marketing also uses a set of "tools" which have been identified as being particularly effective in fostering such change. While each of these tools on its own is capable of promoting sustainable behaviour under the right conditions, the tools are most effective when used together.

Community-based social marketing is pragmatic. It involves:

- identifying the barriers to a behaviour
- developing and piloting a program to overcome these barriers
- implementing the program across a community
- evaluating the effectiveness of the program

To promote sustainable lifestyles effectively, the barriers to a sustainable activity must first be identified. Community-based social marketers therefore begin by conducting the research that will help them identify these barriers. It is not unusual for this research to uncover multiple barriers quite specific to the activity being promoted.

Once the barriers have been identified, community-based social marketers develop a program that addresses each of the them. Personal contact, the removal of structural barriers, and the use of proven *tools of change* are emphasized in the program.

To ensure that the program will be successful, it is piloted in a small segment of the community and refined until it is effective. The program is then implemented throughout the community and procedures are put in place to monitor its effectiveness on an ongoing basis.

The tools and detailed case studies provided in this Workbook will help you incorporate into your program the techniques of community-based social marketing. The steps comprising community-based social marketing are simple, but effective. When barriers are identified and appropriate programs are designed to address these barriers, the frequent result is that individuals adopt more sustainable lifestyles, which is the cornerstone of a sustainable community.

Doug McKenzie-Mohr, Fredericton, 1997

Making the Link: Promoting Green Products and Community Economic Development

Municipalities, businesses large and small, people everywhere, including the poor and unemployed, are beginning to establish partnerships to save, revitalize and ensure the sustainability of our communities. As groups work together, they inevitably reveal the enmeshment of a community's economic and environmental health — to strengthen the economic sustainability of a community, its environmental sustainability must also be improved. So in developing local business, they often favour those with strong environmental enhancement, preservation and stewardship elements.

Our experience at West End Community Ventures was typical of such community economic development work. In the first years of venture development we designed, incubated and supported many "green" community businesses. These businesses faced common challenges, particularly those related to marketing their products. How could they encourage more people to buy and use the "greener" alternatives they provided?

We came to see that we shared these challenges with many other kinds of organizations and programs. We all needed to understand what would motivate people, and how to trigger that motivation. We had to uncover what was getting in the way of their taking action, and how to reduce those obstacles. We needed to gain a piece of the public's heart. And, in order to support our efforts to build a better future, most of us needed to make money in the process.

It was our need for answers that led to the development of this Workbook, which is a toolbox of practical ideas, skills and experiences for facing these challenges. We commend it to you and encourage you to join with your neighbours and invest your time and creativity in building the health and wealth of your community.

Sandra Mark, Past Executive Director
Art Montague, Executive Director
West End Community Ventures, Ottawa

Planning Guide

Planning — arguably the most important stage of any program — is often neglected in the rush of day-to-day demands. Therefore, we've designed this guide to help you plan. The process has been broken down into seven sections, each with step-by-step instructions, plenty of examples, and space for you to plan your own program.

A human guide shares his or her experience but is not in charge of the expedition. So it is with this Planning Guide. It suggests approaches or maps pathways charted by the Case Studies. Each reader will have unique "travel preferences" and will face different circumstances. Consider the instructions as guidelines — well tested and dependable, but not inflexible.

Three main examples will be used throughout the Planning Guide. *Get in the Loop* is an annual, mouth-long campaign that reminds shoppers to buy recycled-content products through in-store promotional materials, a print and radio advertising campaign. *Go Boulder* uses a variety of methods to promote a shift from single-occupant vehicle use to more sustainable forms of transportation. *Quinte Regional Recycling* promotes waste reduction through backyard composting and recycling.

Contents

I Setting Objectives

In this section you will be identifying the objectives that you want your program to achieve.

You will:
- Describe the situation you want to change or the problem you want to solve.
- Identify the specific actions you want people to take to help solve the problem.
- Set measurable objectives that can help you monitor and evaluate your progress.
- Decide how you will measure the achievement of these objectives.

1 Identify the problem(s) you want to solve or the situation you want to change.

Examples

Get in the Loop — Buy Recycled was developed to overcome languishing retail sales of products with recycled content.

Go Boulder was developed to reduce traffic congestion and air pollution in Boulder City.

Quinte Regional Recycling was developed to address the high rate at which landfill space was being consumed in the Quinte Region.

Tip: The more specific the problem, the easier it will be to work on.

Your Program

Describe the problem you want to solve or the situation you want to change.

2 Decide on the specific actions you want people to take to help solve the problem.

Examples

Get in the Loop — Buy Recycled wanted people to buy more recycled-content products.

Go Boulder promoted a shift from single-occupant vehicle use to alternative modes of transportation such as bicycles, public transit and walking.

Quinte Regional Recycling wanted people to compost at home and discard less garbage for disposal.

Your Program

Write out the specific actions you want people to take.

3 Determine baselines against which you can measure your achievements.

Examples

In 1989 *Boulder* estimated that only 27 percent of daily trips involved alternative transportation modes while 73 percent involved single-occupant vehicles.

Quinte's participation in residential composting was 34 percent in 1992.

Your Program

What is the current level of participation in the activity?

JEEP had seen demand for power increase from 6.3 MW in 1981 to 11.9 MW in 1991.

What is the current rate at which related resources are being used?

Tip: For suggestions on answering these questions, see page 8.

4 Set measurable objectives that can help you monitor and evaluate your progress.

Examples

Your Program

What changes in participation and resource use have others achieved?

What circumstances in your community will affect your ability to achieve similar results?

Boulder wanted to shift 15 percent of the trips from single-occupant vehicles to the alternative forms of transportation by the year 2010.

By the year 2000, *Quinte* wanted to be diverting 71 percent of its residential waste stream from landfill. It also wanted to increase participation in residential composting to 80 percent by the year 2000.

JEEP wanted to overcome the trend toward increases and reduce demand for power by 0.5 MW.

What is a realistic target to set? Specify how much of a change you hope to achieve, and in how many years you hope to achieve it.

5 Decide how you will measure the achievement of these objectives.

Examples

Your Program

Go Boulder was able to directly count the number of people who bought transit passes.

Quinte Regional Recycling tracked curbside lift counts, the weight of waste going to landfill, the weight of Blue Box materials, and savings in landfill costs, among other variables.

How can you measure the actions and their results **directly**?

Tip: Whenever practical, measure actions and their results directly. You will get more accurate information than if you use the less direct methods discussed on page 5.

In exchange for data on the sales of labelled products with recycled content, *Get in the Loop — Buy Recycled* provided retail partners with mention in the program's paid advertising and public relations materials.

Each EcoTeam in the *Global Action Plan* program collected information on the activities of its participants and then provided it to a central database. This information was used to estimate the resource savings that each participant had achieved. The data were then available on an individual, team, country-wide and program-wide basis.

Go Boulder had survey participants record their transportation patterns using logbooks.

How might you get participants to measure their actions and results, and report them to you (less direct)?

> **Tip: Where possible, avoid having participants estimate their actions or results, as estimates provide unreliable information. Similarly, avoid asking people to speculate on intended actions and results. If you must rely on such estimates, verify them periodically using direct methods.**

Can you get useful information by asking participants to estimate their actions or results?

Students at *Norway*, *Whitney* and Lochside (*Bike Smarts*) schools took surveys home for their parents to complete. This provided a "quick and dirty" estimate of the impact of these programs.

If you can't measure results directly and are not able to have participants do it, how might you estimate your achievements (least direct)? How will you compensate for, or otherwise deal with, the expected inaccuracy?

II Developing Partners

In this section you will be mapping out potential partners for your program.

You will:

- Identify the assistance that might be most helpful to you and the potential disadvantages of partnerships that would be particularly problematic.
- Decide whether or not you want to develop partnerships with others.
- If appropriate, identify some potentially promising organizations to consider.

1 Consider the potential advantages and disadvantages of working in partnership with others.

Examples

Get in the Loop — Buy Recycled received $600,000 of in-kind advertising from local retailers in 1994-95. At that time, the program had engaged the participation of 863 retail stores in Washington State, including the major grocery chains. This enabled them to reach one quarter of the state's population at the point when people were choosing whether to buy products with recycled content.

Tip: In these days of limited resources, skepticism and information clutter, promotional partnerships can provide a number of key benefits including those in the right-hand column.

Tip: However, depending on how you structure and manage the partnerships, you may experience disadvantages such as those listed to the right.

Your Program

Consider the types of assistance that would be most helpful to you:

- ❑ sharing of financial and human resources
- ❑ a greater pool of knowledge, skills, networks and other resources to draw on
- ❑ greater credibility and perceived importance of your message
- ❑ more opportunities to reach more people more often with a consistent message

Determine the disadvantages of partnerships that would be particularly problematic for you:

- ❑ more complex or longer approval processes
- ❑ conflicting agendas
- ❑ time and other resources required to develop and support the partnerships
- ❑ time involved in learning new skills to manage the partnerships effectively

2 Decide if partnering is something you want to pursue further. If so, proceed to step 3.

3 Brainstorm about possible partners who might provide the assistance you need most.

Examples

The following are examples of the types of partners you might consider:

- schools (see Case Studies, pages 76, 108, 119, 130, 166)
- churches and other religious organizations
- community associations (see Case Studies, pages 82, 101)
- governments (see Case Studies, pages 67, 79, 108, 119, 124, 135, 138, 163)
- foundations
- associations (see Case Studies, page 82)
- utilities (see Case Studies, pages 67, 71, 79, 113, 115, 119, 124, 132, 135, 159)
- manufacturers (see Case Studies, pages 71, 98)
- local vendors (see Case Studies, pages 98, 108, 113, 115)
- other businesses (see Case Studies, pages 67, 82, 92, 137)
- unions and professional associations (see Case Studies, page 71)

Tip: Don't critique or reject options until you have drawn up your complete list. Then go back over the list to see which organizations might be most appropriate as partners.

Tip: Approach potential partners as early as possible in your planning process. This enables them to contribute more and develop a stronger investment in your mutual success.

Your Program

Using the examples in the left-hand column as a guide, list organizations who have goals the same as or complementary to your own. Circle the ones who might provide the types of assistance you most require.

III Getting Informed

In this section you will be mapping out your information requirements and how to meet them.

You will:

- Identify the areas you want to be more informed about.
- Decide about contacting others in your field and conducting a literature review.
- Determine whether to arrange focus groups.
- Consider conducting telephone surveys.

1 Decide what information you will need in order to base your program on a solid foundation.

Examples

Tip: Go back to page 3, "Setting Objectives," to see what information gaps you have already identified.

Tip: You may need to cut corners if you are limited by time or other resources. Tips are provided to help you do this. However, we strongly advise you to include this critical stage in your planning process, so you can identify the key barriers to change. Otherwise you may find that you are unable to achieve your desired results.

In 1989 *Boulder* estimated that only 27 percent of daily trips involved alternative transportation modes while 73 percent involved single-occupant vehicles.

Quinte's participation in residential composting was 34 percent in 1992.

JEEP had seen demand for power increase from 6.3 MW in 1981 to 11.9 MW in 1991.

Tip: Use your hunches to help come up with potential areas worth looking into. Then collect objective data.

Tip: For further details on how to carry out each of the following steps, refer to chapter 7 in *Promoting a Sustainable Future: An Introduction to Community-Based Social Marketing* (Ottawa: NRTEE) by Doug McKenzie-Mohr.

JEEP wanted people to purchase and install energy saving devices. Research had revealed that in the short run residents were unlikely to make the purchases without some sort of incentive.

Your Program

Identify the information you want to collect:

- ❑ your community's current level of participation in the activity
- ❑ related use of resources by your community
- ❑ the levels of change in participation and resource use that others have achieved
- ❑ circumstances in your community that may affect your ability to achieve similar results

- ❑ factors that commonly motivate people to do the activity
- ❑ whether a financial incentive will be required

Get in the Loop — Buy Recycled found that far fewer people were actually buying recycled-content products than had been predicted on the basis of purchasing intentions. A telephone survey identified five main barriers that were preventing people from taking action: price, quality, low consumer awareness of product availability, consumer cynicism about environmental claims, and an unwillingness to put much effort into locating the products.

Go Boulder identified potential barriers for specific target audiences. For example, one of the key factors discouraging business people from taking the bus was their concern about how they would get home if they had to work late or were in an emergency situation.

❑ common barriers to doing the activity and how others have dealt with them in the past. (For a definition, examples and further help see the Tool *Overcoming Specific Barriers*.)

2 Contact others working in your field and conduct a literature search of relevant articles and reports.

Examples

Get in the Loop — Buy Recycled found that far fewer people were actually buying recycled-content products than past surveys had predicted. They identified approaches that others had tried in the past to make the products easier to find; none seemed to have had much effect on purchases. This information helped them design a survey that got to the root of the issue, probing why people were not buying more of the products. They also obtained detailed information on how people needed to be informed about product availability.

JEEP wanted people to use power saver cords for car block heaters. They learned that a program in the Yukon had been successful in selling the cords but that most of the cords had not been installed or had been installed incorrectly — apparently because customers had been expected to perform the installation themselves.

Tip: If you don't have the resources to do an extensive literature search, ask others working in your field to recommend the articles and reports they have found most helpful.

Tip: Once you have assimilated all this information, contact the authors of studies that are of particular interest, to inquire about more current information.

Tip: The Case Studies in this Workbook will give you a good start in your literature search.

Your Program

Note other individuals and organizations working in your field that might be worth contacting.

List some of the key words to use when searching databases or the Internet, and when asking others for help.

Jot down some of the libraries and databases that might be worth checking.

3 Explore the attitudes and behaviours of your community regarding the activity.

Examples

Tip: If resource limitations force you to make a choice between using focus groups or a survey, it is often best to use the survey. Surveys provide less biased results and can help you better determine the relative importance of various barriers and motivators.

Get in the Loop decided that they had enough information to go directly to the telephone survey (step 4). Then, one year later, they ran focus groups to get more detail on the attitudes and concerns underlying people's responses to the telephone survey. At the same time, they were able to gauge reactions to aspects of the program they had been putting in place.

Tip: If you don't have the resources to conduct formal focus groups, check the findings of your literature review with several people who work in your field.

Tip: For further information on organizing focus groups, refer to chapter 7 in *Promoting a Sustainable Future: An Introduction to Community-Based Social Marketing* (Ottawa: NRTEE) by Doug McKenzie-Mohr.

Your Program

Consider having focus groups organized. What resourcing options are available to you? Staff? Volunteers? A consultant?

Alternatively, check your findings with some of the people you contacted in step 2.

4 Conduct a telephone survey with a random sample from your target population.

Examples

Get in the Loop had a consulting firm call the primary shopper in 800 households. This survey identified five main barriers that were preventing people from taking action: price, quality, consumer awareness of product availability, consumer cynicism about environmental claims, and an unwillingness to put effort into locating the products.

The survey also revealed that most consumers wanted to learn about product availability at the store — not through other methods such as 1-800 numbers and directories.

Tip: You may only need to phone as few as 40 households if you select a random sample, so this step is not necessarily costly or time-consuming. However, you are strongly advised to involve someone with a strong background in survey design and statistics.

Tip: For further information on designing and carrying out telephone surveys, refer to chapter 7 in *Promoting a Sustainable Future: An Introduction to Community-Based Social Marketing* (Ottawa: NRTEE) by Doug McKenzie-Mohr.

Your Program

Arrange for someone with a strong background in survey design to help draw up the survey, arrange for people to make the phone calls and provide them with clear instructions, and arrange for someone with a strong background in statistics to analyze the data,

OR

arrange for a consultant to prepare, conduct and analyze the survey.

IV Targeting the Audience

In this section you will decide on your target population — the group(s) of people you most want to reach.

1 Consider the group(s) of people you might focus on.

Examples

In *Claremont*, a program to promote recycling was directed at households who were not putting out recyclables at the curb.

Your Program

What groups are not doing the desired activity, or are not doing it as often or as thoroughly as you would like? Make a list.

Tip: Whenever possible, base your thinking about your target audience on facts, not hunches.

Tip: For suggestions on finding answers to these questions, see page 8, "Getting Informed."

The Great Strathcona Exchange targeted individuals with large household items that could be reused by others. There was no other convenient method available for exchanging such items — an important barrier that the *Exchange* helped overcome.

What groups are discouraged or prevented from doing the desired activity by a common barrier that you can help them overcome? Make a list.

Tip: In many situations, demographic and psychographic differences are not very helpful in predicting who will or will not adopt a behaviour. In such cases it is better to target participants based on other factors (e.g., barriers).

Do any of these groups have something in common that will help you reach them?

Get in the Loop — Buy Recycled discovered that women and well-educated consumers were more likely to seek out and purchase recycled-content products. The program decided to focus on reaching these two groups.

What groups would be the most receptive to making the desired changes? Make a list.

The *Global Action Plan* decided to target "early adopter" neighbourhoods, which were identified using information on recycling rates.

Go Boulder targeted particular businesses, schools and neighbourhoods who could be well serviced by public transit for their transit pass promotions.

What group would benefit the most from the desired changes? Make a list.

ReCAP used consumption information from utility records to identify homes with the greatest potential for savings.

2 Choose your target audience.

Your Program

Go back to your answers above and circle one or two groups on which to focus.

V Choosing Tools of Change

In this section you will identify Tools of Change that might assist your program in achieving its objectives.

You will:
- Consider how to motivate people to make the desired changes.
- Choose ways to help them remember to do the new actions.
- Find ways of making it easier for people to take each next step.
- Decide how you will build motivation and social momentum over time.

For a definition of each tool and tips on when to use it, see the Tools of Change referred to below.

1 Decide how you will motivate people to start doing the activity.

Examples

Quinte Regional Recycling found that the tons of garbage sent to landfill decreased by 46 percent in the year that user pay was introduced. This compared to an average decrease of 3.5 percent in the same period for municipalities that did not implement user pay.

The Clean Air Commute collected commitments from employees to participate in smog-reducing activities, and posted this information in a display at work sites, along with each participant's name and signature. At the end of each month, results were collected and marked on the display.

Pacific Gas and Electric trained home assessors to appeal to concerns about heat loss, energy costs and comfort, as follows:

> You know, if you were to add up all the cracks around these doors here, you'd have the equivalent of a hole the size of a football in your living room wall. Think for a moment about all the heat that would escape from a hole that size. That's why I recommend you install weather-stripping. And your attic totally lacks insulation. We professionals call that a naked attic. It's as if your home is facing winter not just without an overcoat, but without any clothing at all.

Peterborough Green-Up used a blower door test to estimate the total combined size of all the gaps in a home. They also asked the residents to feel the air rushing in at several trouble spots.

Your Program

For suggestions and examples on how to:

- ❑ use incentives — see the Tool *Financial Incentives and Disincentives*
- ❑ appeal to norms — see the Tool *Norm Appeals*
- ❑ use vivid, personalized messages — see the Tool *Vivid, Personalized Communication*

ReCAP's home advisors asked residents to feel the cold air leaking in through cracks that needed weather-stripping.

Students at *Whitney Public School* were given a homework assignment to take responsibility for their home's Blue Box recycling for one week. The assignment was to be carried out by the students, with parents' participation.

Go Boulder arranged with local businesses to buy transit "eco passes" to give to their employees.

- ❑ involve individuals personally — see the Tool *Building Motivation Over Time*
- ❑ involve school children as change agents — see the Tool *School Programs that Involve the Family*
- ❑ approach people through their work places — see the Tool *Work Programs that Influence the Home*

2 Choose ways to help people remember to do the action.

Examples

The *Get in the Loop* campaign used "shelf talkers" to identify specific recycled-product choices on the store shelf. A "shelf talker" is a simple marker placed on the edge of a standard retail shelf, below the product.

Many waste reduction programs have successfully promoted recycling by making it easy to put recyclables at the curb for collection at the same time as garbage. In addition, *Quinte Regional Recycling* linked composting with recycling by putting decals on people's Blue Boxes that said, "We compost too."

Your Program

For suggestions and examples on how to:

- ❑ provide reminders (decals, tags, etc.) in places where the action, or the decision to take action, occurs — see the Tool *Prompts*
- ❑ make a link to activities people are already doing — see the Tool *Building Motivation Over Time*

3 Find ways to make it easier for people in your target groups to take each next step.

Examples

Go Boulder decided that it was cost effective and critical to build more bikeways, as well as overpasses and underpasses for bikes and pedestrians, gradually over a number of years. To make their business transit pass more attractive, a Guaranteed Ride Home program was devised.

Your Program

For suggestions and examples on how to:

- ❑ address the key situation-specific barriers identified on page 8, "Getting Informed" — see the Tool *Overcoming Specific Barriers*

Most brochures provide a "call to action" and details on contacts for getting more information.

Peterborough Green-Up provided ongoing workshops on sustainable gardening, and left residents with a list of repair and retrofit priorities.

For suggestions and examples on how to:

- ❑ provide, at each step, attractive opportunities to take further steps — see the Tool *Building Motivation Over Time*

4 Decide how you will build motivation for continuing the action, and sustain momentum over time.

▽ Examples

▼ Your Program

Many waste reduction programs have successfully promoted recycling by making it easy to put recyclables at the curb for collection at the same time as garbage. In addition, *Quinte Regional Recycling* linked composting with recycling by putting decals on people's Blue Boxes that said, "We compost too."

For suggestions and examples on how to:

- ❑ make a link to actions that people in your target groups are already doing
- ❑ recognize and reinforce their current motivation regarding related actions and issues, and
- ❑ involve them personally in further steps

see the Tool *Building Motivation Over Time.*

ReCAP asked residents to make an oral commitment to carrying out the list of repair and retrofit priorities residents had helped prepare.

The Toxic Challenge and *We're Toxic Free* asked residents to make a written commitment to reducing their use of toxics.

For suggestions and examples on how to:

- ❑ obtain an oral or written commitment to take the desired action — see the Tool *Obtaining a Commitment*

The colour and size of Blue Box recycling containers, and the fact that they were put out at the curb regularly for collection, made it obvious that others were recycling.

For suggestions and examples on how to:

- ❑ increase the visibility of participation — see the Tool *Norm Appeals*

People receiving home visits from *ReCAP* were simply asked: "If you are happy with the service you received, please tell others about it." This request was made orally at the end of the visit and was repeated on the recommendation sheet left with the residents.

For suggestions and examples on how to:

- ❑ enhance word-of-mouth communication of your participants' involvement, enthusiasm, and benefits gained — see the Tool *Word-of-mouth*

Go Boulder arranged for an average of two stories each month in the local newspaper, featuring stories of individual success and community participation. Five video presentations were run repeatedly on the community television channel. Additional feedback was provided through promotions, special events and presentations to community organizations.

For suggestions and examples on how to:

- ❑ provide recognition and feedback — see the Tool *Feedback*

VI Financing the Program

In this section you'll identify potential one-time and ongoing ways of paying for your program.

1 To ensure that your program will continue operating over time, design it to pay for itself.

Examples	Your Program
Businesses paid *ReCAP* for distributing their business-promotion coupons to targeted residents through *ReCAP's* home visits. Three manufacturers provided *Get in the Loop* with a total of $25,000 in 1994-95. Most of Ontario's "Green Communities" organizations (see sidebar in *ReCAP* in the Case Studies) eventually started charging for their home visits.	Which of the following would work for your program? Assess the value of and charge for the promotional opportunities you provide (coupons, demonstrations, referrals, advertising, public relations opportunities). What other promotional opportunities could you offer?
The *Global Action Plan* charged participants for their workbook.	Assess the value of and charge for the products and services you provide. What other products and services would add value for your participants?
Almost all of the organizations described in the Case Studies received funding from partners. Tip: See page 6, "Developing Partners."	Obtain funding from partners who benefit from your program or who want to encourage what you are doing.
Go Boulder's transit pass program, once set up, took a minimum of resources to maintain on an ongoing basis.	Choose low cost/low maintenance/high impact program activities.
Whitney Public School tied its activities into Earth Week; *The Great Strathcona Exchange* tied theirs into Environment Week.	Tie program activities to ones already being carried out by your organization and its partners, such as Scout badge programs and annual festivals.

Claremont interested a local Boy Scout troop in providing their home visits.

Tip: See the Tool *Building Motivation Over Time.*

Establish partnerships with program-delivery organizations, such as service clubs and community associations, who can offer volunteer labour on an ongoing basis.

Members of the *Global Action Plan's* EcoTeams took turns facilitating the meetings, with support from a trained volunteer Coach who had already been through the program.

Provide leadership as well as other volunteer opportunities to encourage participants to help carry out the program.

Peterborough Green-Up's Ecology Park was partially staffed by volunteers. The volunteers were offered a selection of 12 workshop topics, and could attend as many sessions as they wanted. Each half-hour session was followed later by one to two hours of hands-on field work, scheduled at the volunteer's convenience. Certificates were issued on completion of any six topics.

Tip: Business managers often use two key measures to help determine if a project should receive funding. The first is the payback period, which is the amount of time it will take for the benefits of a project to pay for the investment made. The second is return on investment (ROI), which assesses the value of the project benefits compared to the project costs. The question is: Where can the organization's money be placed in order to get the most "bang for the buck."

Measure the achievements of your organization's and your partners' objectives, compare the benefits with the costs, and let people know!

Tip: See page 18, "Measuring Achievements."

The composting program ran by *Quinte Regional Recycling* saved about $150 per composter in collection and tipping fees, over a ten-year period. This program paid for itself in two years and had an ROI of 48 percent per year over the ten-year period.

Tip: What costs would your program save? Can you show a direct and profitable link if you achieve your objectives?

Annual costs for Kamloops' *WaterSmart* program were paid for by the electricity savings from pumping less water. All of the other savings, including $500,000 annually in deferred interest charges, were in addition to this. Each summer the program paid for itself within the first month of operation, and generated an ROI of over 500 percent.

VII Measuring Achievements

In this section you will map out ways of monitoring the achievement of your objectives to ensure that your program stays on track. This will also help you improve your program on an ongoing basis, and justify requests for project funding.

You will:
- Consider the use of pilot testing.
- Decide what measures to monitor frequently.
- Select the ones you will measure only at major milestones.
- Consider setting up a control group.

1 Whenever practical, pilot test your program before implementing it widely.

Examples

When *Go Boulder* first introduced its Guaranteed Ride Home, it pilot-tested it with a small number of companies. No limits were set on its use so that any possible abuses would become apparent. Similarly, its student transit pass was first introduced at the University of Colorado on a one-year trial basis.

Your Program

What groups or locations are available for pilot testing your program?

Which of the measurement methods that you listed in "Setting Objectives" would be appropriate for such a pilot?

2 Decide what measures you will monitor frequently to ensure that your program stays on track.

Examples

Quinte Regional Recycling continuously tracked curbside lift counts, the weight of waste going to landfill, and the weight of Blue Box materials.

On an ongoing basis, *JEEP* monitored energy outputs at the local power plant and estimated energy savings using information from home visit reports.

Your Program

Which of the measurement methods that you listed in "Setting Objectives" could you use frequently or on an ongoing basis?

3 Choose the measures you will track less frequently, e.g., at major program milestones.

Examples

Go Boulder conducted a Biennial Diary Study, for which 1,000 residents kept a log of their travels for a randomly assigned day in the second week of September. Six years of data on the progress of the program had been accumulated by 1995. Similar studies were undertaken with employees, who were asked to record their travel habits for a full week.

Quinte Regional Recycling conducted periodic studies on waste composition and the use of backyard composters.

Your Program

Which of the measurement methods that you listed in "Setting Objectives" could you use on a less frequent basis?

4 **Wherever possible, make use of control groups — randomly selected groups of people who were not exposed to your program or, at least, not to the parts of it that you are planning to monitor. This helps filter out background changes and influences so that you can be more confident in measuring the changes that are actually a consequence of your program. A less reliable alternative is to compare resource use and/or people's actions before and after implementing your program.**

Examples

The Environment Network wanted to measure the impact of new promotional kits on people who had already had their Green Home Tune-Up. They randomly selected 50 residents who had participated in their home Tune-Up but who did not receive the new kits (the control group). By comparing survey data from the two groups they were able to calculate the statistical significance of this program's impact.

Tip: Plan how you will select your control group before you engage participants, or you may find it difficult to find the control group you need.

Your Program

How might you set up a control group for your measurements?

Tools of Change

A job is so much easier with the right tools at hand! These tools offer powerful approaches that can make your programs more successful. Some of these tools provide fundamental ways of motivating people to take the action you wish them to take: *Financial Incentives and Disincentives, Norm Appeals, Vivid, Personalized Communication, Feedback, Obtaining a Commitment* and *Building Motivation Over Time* are tools that can help you increase motivation. They can also help overcome barriers and disincentives, such as inertia, information clutter, and feelings of isolation, which would otherwise discourage people from participating in your program.

Methods for overcoming people's forgetfulness are offered in the Tool *Prompts*. Other particular barriers are addressed in the Tool *Overcoming Specific Barriers*.

Some of the tools in this section, such as *Home Visits, Mass Media* and *Peer Support Groups* are combinations of a variety of tools and techniques, presented together in formats to help you reach people most effectively.

Each tool contains step-by-step instructions, plenty of examples and space for you to plan your own programs. As with the Planning Guide, these instructions offer flexible guidelines that can be adapted to your particular situation.

Contents

Building Motivation Over Time

? What is this Tool?

- Motivational techniques such as linking to activities that people are already doing, recognizing them for actions already taken, and providing ongoing opportunities to take further steps and become more involved.

- Steps for strengthening motivation over time.

? Why would you use it?

- Because you want to increase the likelihood that a person will start and continue the activities you are promoting.

? When would you use it?

- Before designing your program, identify the most relevant motivators. Then structure the following techniques into your program. Each technique has its own right timing, as described below.

The main example used is the home visit service of *ReCAP*, initiated in 1993 as part of Ontario's Green Communities.

1 Identify the factors that commonly motivate people to take the actions.

Examples

ReCAP staff received the standard Green Communities training program which identified the common motivators relevant to the actions they were promoting. For example, they learned that cost and comfort were two of the key motivators influencing people to undertake home energy audits.

Tip: Like barriers, motivators can be quite specific to a given action and to a given target audience.

Your Program

Refer to the step-by-step instructions on page 8, "Getting Informed."

2 When designing your program, and in all communications, link the desired actions to these motivators.

Examples

ReCAP's home advisors listened carefully to each householder's remarks, both during the initial interview and throughout the home visit, then talked in terms of the activities (e.g., gardening) and interests (e.g., child safety) that seemed most important in each case. As part of the standard Green Communities training program, the home advisors were provided with instructions and practice exercises in doing this.

Your Program

List the motivators identified in step 1, in order of probable importance. How can you link the desired actions to each?

Motivator 1:

How to link to it:

Tip: With face-to-face approaches you can look for clues and ask questions that identify the most important motivators for each person you contact. Train your program implementers to do this.

Tip: Use the Tool *Vivid, Personalized Communication.*

List the motivators identified in step 1, in order of probable importance. How can you link the desired actions to each?

Motivator 1:

How to link to it:

Motivator 2:

3 Link the desired action to related activities that people are already doing. Also link to "hot issues" in your community.

Examples

Many waste reduction programs have successfully promoted recycling by making it easy to put recyclables at the curb for collection at the same time as garbage. In addition, *Quinte Regional Recycling* linked composting with recycling by putting decals on people's Blue Boxes that said: "We compost too."

Your Program

What action are you trying to promote?

List people's common activities related to the desired action. Can you make a link?

List current "hot issues" in your community and how you might be able to make a link.

4 Once you have established a common ground (i.e., the motivators, current activities and "hot community issues"), recognize related actions the person has already taken.

Examples

ReCAP's Home Advisors commended householders on existing conservation-related efforts, including their initiative in booking the home visit.

Tip: Even such actions as keeping past utility records, reading most of the way through a brochure, or choosing to have a home visit can be highlighted so people see themselves as already concerned and involved.

Your Program

What related actions will people have likely taken by the time you visit them or get your message to them?

5 Once you have established a common interest, help the person:
- physically experience the things that illustrate the points you are making (through touch, smell, sight or hearing), and
- analyze the information collected and draw conclusions.

Examples

ReCAP's home advisors asked residents to feel the cold air leaking in through cracks that needed weather-stripping.

Pacific Gas and Electric's home auditors encouraged residents to measure the cracks under their doors, read their meters, and climb up ladders to see the levels of attic insulation.

Participants in the *Global Action Plan* completed work sheets about their home situations that helped them decide what actions to take.

The Clean Air Commute, *The Toxic Challenge* and *We're Toxic Free* all used a questionnaire or report card that engaged people in looking at their own situations.

Your Program

What are some of the ways you can do this?

6 Once you have established that the person is motivated to do the action, ask for an oral or written commitment to do so.

Examples

ReCAP asked residents to commit orally to carrying out the list of repair/retrofit priorities each resident had helped prepare.

In *Iowa City* participants who were told that their names would be published reduced their natural gas and electricity usage by 10 percent to 20 percent. No significant reduction occurred when participants were assured of anonymity.

Your Program

See the Tool *Obtaining a Commitment.*

7 Remind people to take the actions and provide them with meaningful feedback.

Your Program

Please refer to the Tools *Prompts* and *Feedback.*

8 Provide opportunities to take further steps.

Examples

Most brochures provide a "call to action" and details on contacts for getting more information.

Peterborough Green-Up provided ongoing workshops on sustainable gardening. It also left residents with a list of repair/retrofit priorities.

Your Program

What are some of the ways you can do this?

9 Provide recruiting and leadership opportunities. These are public statements of commitment to your program that further strengthen motivation to take action.

Examples

ReCAP asked those who had had a home visit to tell others about it.

Global Action Plan's EcoTeam members took turns facilitating the meetings, with support from a trained volunteer coach who had already been through the program. At the end of their program, they were asked to invite people to an introduction event.

Residents of *Claremont* who recycled were recruited to help their neighbours learn to recycle.

Your Program

How can you encourage participants to promote the desired actions and your program to others? See the Tool *Word-of-mouth.*

List some of the other ways you can provide leadership opportunities:

- ❑ peer support groups
- ❑ neighbourhood coaches and block leaders
- ❑ other opportunities to volunteer

Feedback

? What is this Tool?

- A process for providing participants with information about the impact of their actions.
- Individual feedback provides information on the impact of an individual's participation.
- Community feedback provides the results of an entire group's efforts.

? Why would you use it?

- Because feedback helps individuals learn from their actions and make improvements.
- Because it enables people to see how they are making a difference, and is therefore an important element of building motivation.
- Because it helps develop community norms by showing that many others are participating.

? When would you use it?

- Individual feedback should be provided whenever a practical method is available for doing so.
- Group feedback should always be provided. It is usually best to do so once the results being shared are sufficiently inspiring.

The main examples used are *Global Action Plan* which helped people adapt sustainable lifestyles through a peer support program, and *JEEP* which was centred on home visits and a retrofit incentives program.

1 Decide what you would like to provide feedback on.

Examples

Global Action Plan (*GAP*) participants were provided with information on both individual and group progress toward achieving the program's objectives. These objectives included diversion of waste from landfill, and reductions in the use of electricity, natural gas, water and transportation fuel. *GAP* also publicized the amount of money that participants saved through their actions, because cost savings was one factor that motivated people to take action.

JEEP provided feedback on progress toward its main goal — achieving a specific reduction in electricity usage.

Your Program

List your program's key measurable objectives (see "Planning Guide," page 1).

1.

2.

3.

Also list the key factors that motivate people to do the activity. Feedback on these factors may be particularly relevant and inspiring to participants and those interested in becoming involved.

1.

2.

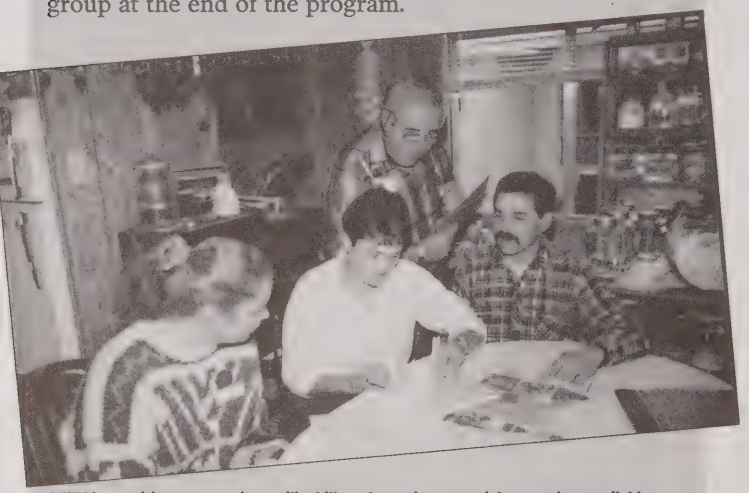
3.

Circle those you can cost-effectively track on an individual basis (put a letter "I" beside the number) and on a group basis (put a "G" beside the number).

2 Provide individual feedback if practical.

Examples

Information on what each group member had done between meetings was sent by *GAP's* EcoTeams to a central and community database. There it was converted into resulting savings for each individual and fed back to the group at the end of the program.



A *JEEP* home visit team examines utility bills to determine potential cost savings available to homeowners. Future bills will provide individual feedback.

By helping residents work with their utility bills, home audit programs like *BC21 PowerSmart*, *JEEP* and the Ontario Green Communities (see *ReCAP*) encouraged each household to track its own progress.

Your Program

Which items (if any) that you marked with an "I" in step 1 would be practical to report back to individuals?

1.

2.

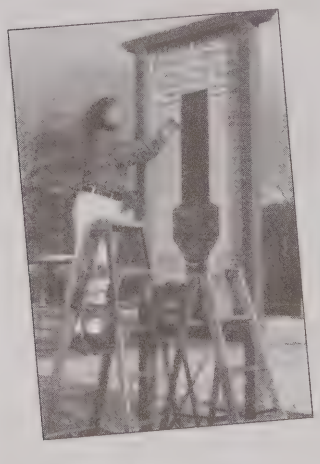
3.

How might you provide this feedback?

3 Decide how to provide cost-effective community feedback.

Examples

Information on the collective accomplishments of all *GAP* EcoTeams was tabulated and distributed every three months in a newsletter to current and past participants. *GAP* also made use of newspapers, television, computer networks, and award systems within each community.



***JEEP's* community feedback sign.**

JEEP used a large, compact-fluorescent light bulb sign placed in the centre of town to provide community feedback on kilowatts of power saved. Feedback was also provided through newspaper articles, advertisements and project reports.

Quinte Regional Recycling provided positive feedback to its citizens through radio spots, video presentations on local television stations, newspaper articles, and a yearly waste-reduction calendar. These featured stories about citizens and local businesses who participated effectively in the Blue Box 2000 program and made a difference in their community through their composting or recycling efforts.

Go Boulder arranged for an average of two stories each month in the local newspaper, featuring stories of individual success and community participation. Five video presentations were run repeatedly on the community television channel. Additional feedback was provided through promotional literature, special events, and presentations to community organizations.

Tip: In general, stick to a few items to give community feedback.

Tip: For tips on feedback that people will be more likely to notice, remember and act on, see the Tool *Vivid, Personalized Communication*.

Your Program

List the items for which you can provide community feedback:

1.

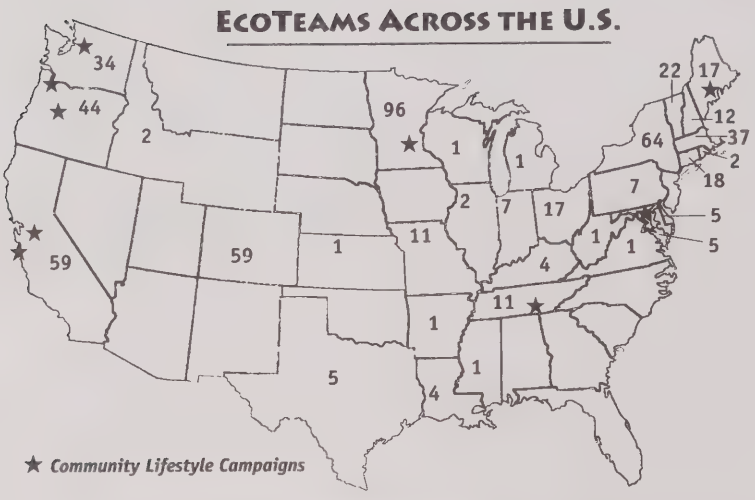
2.

3.

How could you provide it?

- ❑ signs tracking progress
- ❑ media
- ❑ wall calendars
- ❑ literature/newsletters
- ❑ special events
- ❑ presentations

How Feedback was Provided	Case Studies
newspaper articles and ads, radio and television spots, video clips	numerous (e.g., *Go Boulder, Quinte Regional Recycling*)
wall calendars	*Quinte Regional Recycling*
newsletters	*Global Action Plan, The Environment Network*
peer support groups	*Global Action Plan* (see map below)
progress signage	*JEEP*
presentations to community organizations	*Go Boulder*
special events	*Go Boulder*



U.S. CUMULATIVE ECOTEAM RESULTS

Since 1991, EcoTeam Households have saved:

- 4,659,712 LBS. OF GARBAGE FROM ENTERING THE WASTE STREAM;
- 133,672,458 GALS. OF WATER;
- 879,848 GALS. OF GASOLINE;
- 13,633,608 POUNDS OF CO_2;
- 15,368 TREES;
- 3,688,597 LBS. OF ACID RAIN;
- AND HAVE HAD A TOTAL DOLLAR SAVINGS OF $2,607,256.

In 1996, *Global Action Plan* (*GAP*) provided this map to past participants showing the number of EcoTeams and their accomplishments.

Financial Incentives and Disincentives

? What is this Tool?

- Incentives, such as discounts and bottle deposits that entice people by rewarding them for taking action.
- Disincentives, such as fines for over-watering or generating too much garbage that discourage people from taking actions you want them to avoid.

Of course there are often other, non-financial incentives or disincentives. These are discussed in the Tool *Overcoming Specific Barriers.*

? Why would you use it?

- Because incentives and disincentives are powerful tools for encouraging or discouraging behaviours.

? When would you use it?

Consider using financial incentives when all of the following three criteria are met:

- People are unlikely to take the action without the incentive.
- You are trying to stimulate trial of a product or action and evidence indicates that people will probably continue after the trial period without the incentive, or you are able to continue providing the incentive indefinitely.
- The anticipated benefit justifies the investment.

Disincentives can be used at any time provided that they are acceptable to the community.

1 Determine through research how motivated your community would be to do the action as desired without resorting to financial incentives. Proceed only if the incentive is required.

Examples

JEEP wanted people to purchase and install energy saving devices. For some devices, like power saver cords for car block heaters, this was a "once only" purchase; for other devices, like compact fluorescent light bulbs, the aim was to induce trial and continued purchase. Research had revealed that, in the short term, residents were unlikely to make the purchases without some sort of incentive.

Tip: When people are already sufficiently motivated to engage in an activity, the use of financial incentives will likely undermine their internal motivation. Furthermore, should the incentives be removed at some later time it is possible that the intrinsic motivation will not return.

Tip: If a financial incentive is not required, focus on the Tools *Norm Appeals*, *Building Motivation Over Time* and *Obtaining a Commitment*.

Your Program

For instructions on how to do this research refer to page 8, "Getting Informed."

2 Make sure that the incentive/disincentive is large enough to be taken seriously.

Examples

Sidney Township (*Quinte Regional Recycling*) charged $1.50 for every extra bag of garbage collected.

JEEP subsidized up to 80 percent of the cost of targeted products and renovations.

Your Program

What incentives/disincentives have worked elsewhere?

3 Ensure that the incentive is noticeable.

Examples

Sidney Township (*Quinte Regional Recycling*) provided residents with 52 "free" bag tags, which caught their attention. Only tagged bags were collected.

JEEP went door to door to communicate the incentives to residents.

Your Program

How will you ensure that people notice your incentives?

4 Design the incentive/disincentive to discourage evasion.

Examples

Sidney Township (*Quinte Regional Recycling*) did not collect bags unless they were tagged. In addition, fines were introduced for any breach of the user-pay by-law.

JEEP had to place a limit of eight reduced-price, compact fluorescent bulbs per home and five per apartment after the first two days of the program. It had become apparent that people were buying large quantities as gifts for people outside of Jasper. A limit of two indoor and two outdoor lighting timers per residence was also set.

Your Program

List the ways people might be able to evade your incentive/disincentive.

Now go back and note how you can discourage each evasion.

Learning from Other Programs

Incentives	Case Studies
gifts, passes, prizes	*The Clean Air Commute, Guelph 2000, Norway Public School*
reduced price, discount coupons	*BC21 PowerSmart, JEEP, Go Boulder, Peterborough Green-Up, The Environment Network*
no charge (composters, trees)	*Earth-Works, Guelph 2000, Quinte Regional Recycling*
low interest loans	*ReCAP, Pacific Gas and Electric, The Environment Network*
tax increase deferral	*WaterSmart*

Disincentives	Case Studies
user pay	*Quinte Regional Recycling*
fines	*WaterSmart*

Home Visits

? What is this Tool?

Home visits involve meeting face to face with people at their homes. The visits usually last from ten minutes to two hours, depending on what needs to be covered, and can be conducted by volunteers, contractors or staff.

? Why would you use it?

Because visits to people's homes are very direct — so you can identify problems, deal with them immediately, and customize your instructions or persuasive messages for the particular circumstances and concerns of the householder.

? When would you use it?

Use home visits when you want to:

- get conservation devices installed — many programs that provided these devices without installation found that the products were never used or were installed improperly
- ensure that devices previously given to residents have been installed correctly and to make any necessary adjustments
- personally help people overcome key barriers that might otherwise prevent them from taking action
- provide assistance tailored to each resident's particular circumstances
- sample a product and how it is used, or personally demonstrate how to do an activity — this can increase the likelihood that your recommendations are adopted
- obtain the resident's agreement to carry out an activity

The main example used is *ReCAP*, a home visit service initiated in 1993 as part of Ontario's Green Communities initiative.

1 Train the people doing the visits by providing them with:

- social marketing information and skills
- subject information
- product and action information
- technical skills

Examples

ReCAP's Home Advisors received the standard 10-day training course that the Ontario Government provided to each new Green Community. They devoted 1½ days to learning and practising social marketing skills.

Tip: Training materials are available from the Green Communities Association (see the *ReCAP* case study).

Your Program

What training will you provide?

2 Obtain an invitation or agreement to spend time with the resident.

Examples

Earth-Works, *The Toxic Challenge* and *We're Toxic Free* all approached people at their homes without any advance notice. Quizzes and incentives were used to interest them in spending further time.

Be Water Wise found it relatively straightforward to visit homes without advance notice and provide information. However, when they tried to sell water conservation kits through these visits they found that few homes were willing to buy — even though the kits were offered at a significant discount. Furthermore, residents who were asked to make a purchase were less likely to sign an agreement to participate in the program even though the agreement did not require making the purchase.

When *Guelph 2000* introduced its free shade tree program, 35 percent of its home visits were booked by people who called specifically for that incentive. Another 10 percent of the visits were a result of telemarketing efforts and 30 percent came from word-of-mouth promotion.

Tip: If you are going to ask people to spend a significant amount of time or money, have *them* request the visits.

Your Program

Which of the following apply to you?

- ❑ your home visit usually takes less than 20 minutes
- ❑ you will not be asking people to pay for anything
- ❑ the majority of homes in your community would benefit from your visit

If you checked off all of the above, or if you are visiting a retirement or cottage community, you probably do not need to book your visits ahead of time.

Otherwise, you are probably better to ask that residents call ahead to book a visit. In this case, how might you make use of the following promotional options?

- ❑ the mass media
- ❑ school programs
- ❑ special events/displays
- ❑ special incentive programs
- ❑ telemarketing
- ❑ tax and utility bill inserts
- ❑ word-of-mouth

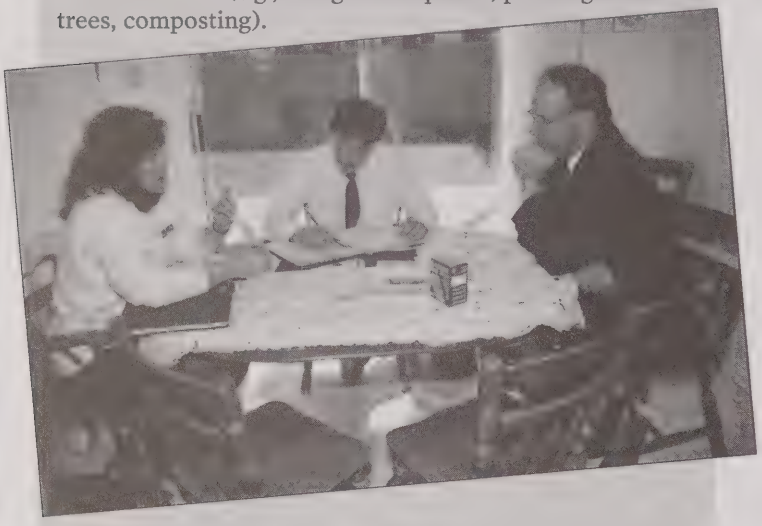
	Word-of-Mouth (%)	Tax and Utility Bill Inserts (%)	Media (%)	Special Incentive Programs (%)	Special Events and Displays (%)	Telemarketing (%)	Cold Calls (%)
BC21 PowerSmart	68-80						
Claremont						100	
Guelph 2000	30			35		10	
ReCap	28	19	29				
The Toxic Challenge							100
We're Toxic Free							100

Arranging to visit: How visits are initiated in some of the Case Studies in this Workbook.

3 Build the resident's motivation to take action. Provide financial incentives if appropriate.

Examples

ReCAP linked its recommendations to each householder's motivators. Advisors listened carefully to a householder's remarks, both during the initial interview and throughout the home visit, and identified clues that suggested where their interests lay. For example, if a householder expressed interest in gardening, or a well-maintained garden was noted, advisors would stress garden-related recommendations (e.g., using native plants, planting shade trees, composting).



A *ReCAP* Home Visit Team with a householder, working together to develop a list of retrofit/ repair priorities.

Your Program

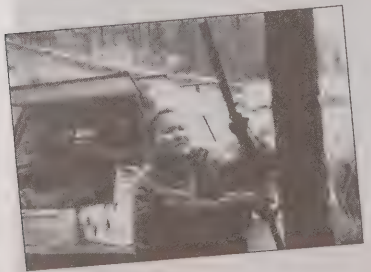
For step-by-step instructions on how to do this, see the Tools *Building Motivation Over Time* and *Financial Incentives and Disincentives.*

4 Help the resident overcome any specific barriers that might prevent them from taking action.

Examples

ReCAP's Home Advisors installed a number of conservation devices free of charge — overcoming a number of potential barriers including lack of time, confidence, knowledge and money.

Furthermore, when they encountered residents who were concerned about the up-front costs of a recommendation, they offered EnviroLoans at lower than average interest rates.



A staff person installs weather-stripping in the Okanagan First Nations Community Project (*BC21 PowerSmart*).

Your Program

For step-by-step instructions on overcoming barriers, see the Tool *Overcoming Specific Barriers.*

5 Ask the resident for an agreement to carry out the actions you are promoting.

Your Program

Please refer to the Tool *Obtaining a Commitment.*

Learning from Other Programs

Visit Length and Who By	Environmental Sector	Case Studies
contractor	energy and water efficiency	*BC21 PowerSmart*
10 minutes, Environmental Youth Corps	water efficiency	*Be Water Wise*
10-30 minutes, Boy Scouts	waste reduction	*City of Claremont*
"keener" citizens	waste reduction	*Earth-Works*
90 minutes, staff	various	*Guelph 2000*
20 minutes, students	energy efficiency	*Iowa City*
staff	energy efficiency	*JEEP*
up to 60 minutes, staff	energy efficiency	*Pacific Gas and Electric*
90 minutes, staff	various	*Peterborough Green-Up*
60-120 minutes, staff	various	*ReCAP*
20-30 minutes, summer student	waste reduction	*Sheffield Mills Community Association*
90 minutes for standard visit, 10 minutes for second (starter kit) visit, staff	various	*The Environment Network*
staff	waste reduction	*The Toxic Challenge*
summer student	waste reduction	*We're Toxic Free*

Mass Media

? What is this Tool?

- Means of public communication that can "broadcast" to a large number of people at one time. Examples include television, radio, newspapers, magazines, flyers and utility bills.

? Why would you use it?

- Because the mass media provide a cost-effective method for reaching large audiences with your messages.

? When would you use it?

- Consider using the mass media in the six situations discussed below. Almost every program will involve one or more of these situations.

In some situations involving relatively minor barriers such as inertia or lack of information, mass media can be one of your primary tools of change.

1. Minor barriers, substantial direct benefit

If the barriers to adopting the behaviour are relatively minor and if there is a clear and substantial direct benefit to the person making the change, you can rely on the mass media as your primary tool for bringing about the desired behaviour.

None of the Case Studies in this Workbook provide a good illustration of this first situation. As one example, consider a campaign to promote a less expensive green product that is similar in every other way to traditional, less sustainable alternatives.

2. Minor barriers, no direct benefit

If the barriers are relatively minor but there is no clear, direct benefit to the person making the change, or if the benefit is not large enough to be taken seriously, you can use the mass media as one of a few key tools for bringing about the desired behaviour.

For example, *Get in the Loop — Buy Recycled* advertised extensively through the media to promote the purchase of recycled-content products. The other key element in its program was in-store prompts.

In situations with significant barriers, you will need to rely on a number of the other tools described in this Workbook. The media can nonetheless be very helpful in the following four situations.

3. To create receptivity to your program

If you need to raise awareness or provide basic information in order to promote receptivity to your program, consider the mass media.

For example, *JEEP* ran a broad public awareness campaign throughout its program. This ensured that the *JEEP* teams were not making cold calls and that the residents were already predisposed to hearing about the details of the program.

In contrast, *Be Water Wise* found that their public education program did not prepare residents adequately for the sale of subsidized water conservation retrofit kits during their 20-minute home visits.

4. To draw people to your program

If you want to draw people to an event, or notify them of an opportunity such as home visits or incentive programs, use the mass media.

For example, *ReCAP* found that 29 percent of home visit bookings came from newspaper articles, and that an additional 19 percent were from tax and utility bill inserts.

5. For seasonal reminders

If people are generally committed to doing the activity but have not done it for a while, a seasonal reminder through the media may prove helpful. For example, seasonal reminders can be used to promote putting out leaves for community-wide composting. The mulching of Christmas trees is another example.

6. To show participation and results

Once your program has gained participation and has started to show results, the mass media provide excellent opportunities for providing group feedback, strengthening norm appeals and building motivation.

For example, *Quinte Regional Recycling* provided positive feedback to its citizens through radio spots, video presentations on local television stations, and newspaper articles. These featured stories about citizens and local businesses that participated in the program and contributed to their community.

1 **Using the right-hand column as a guide, consider some ways you might work with the media.**

Examples

JEEP developed a newspaper advertising campaign consisting of a series of lifestyle advertisements. In addition, other advertisements described the program and provided instructions on booking an appointment with a *JEEP* Team. The official opening of the program was covered by the provincial media. Canada's first Energy Innovators Award was presented to the program at this event by Natural Resources Canada.

Go Boulder organized a "Non-Polluting Commuter Race" which pitted cyclists against motorists in a cross-town competition. The goal of the exercise was to demonstrate the convenience of riding a bicycle.

Your Program

Which of the following might make sense for your program?

- ❑ advertising in newspapers, radio, television
- ❑ inviting the media to cover a program launch or special event
- ❑ involving a celebrity in your program and arranging for related media coverage arranging a quiz or contest in cooperation with the media

Kamloops' *WaterSmart* organized a "Tip of the Week" contest with the cooperation of a local newspaper and radio station. Once a week, a water-saving tip was published in the newspaper, and radio listeners were invited to call in the tip. The first person to phone with the right answer received either a *WaterSmart* t-shirt, a mug, or a low-flow shower head.

Peterborough Green-Up staff wrote a weekly column for the local city newspaper. The column provided seasonal information and feedback, helped remind people about the actions being promoted, and raised awareness about their program.

Tip: Don't forget local community newspapers.

- ❑ inserts and messages directly on utility bills
- ❑ regular newspaper columns
- ❑ radio spots
- ❑ video clips for television

Neighbourhood Coaches and Block Leaders

? What is this Tool?

- People are recruited to help their neighbours overcome the barriers that might otherwise prevent them from adopting the activity being promoted.

This approach, used in some of the programs discussed in this Workbook, seems promising. The use of neighbourhood coaches or block leaders, however, needs further evaluation. We would benefit from your help. If you are using this approach or know of others who have used it, please use the Quick Correspondence Form on page 175 to share this information with us.

Learning from Other Programs

Environmental Sector	Case Studies
waste reduction — recycling	*Claremont*
waste reduction — composting	*Earth-Works, Sheffield Mills Community Association*

Norm Appeals

? What is this Tool?

Norm appeals are ways of making group standards more apparent. The norm appeals in this section all do this in a similar manner. They make it more likely that people will observe others doing the activity you are promoting.

For example, the size and colour of the Blue Box and the fact that it is put out at the curb has helped people see that others in their community are recycling. Similarly, peer support groups can help participants witness each other making changes. Public commitments (see the Tool *Obtaining a Commitment*) are observable by others *by definition.*

? Why would you use it?

People often decide what attitudes and actions are appropriate from observing those around them. This kind of influence can have long-lasting effects.

? When would you use it?

Design norm appeals into your programs at all stages, from program planning to feedback, as described below.

1 Design the activity itself to be as visible as possible.

Examples

The colour and size of Blue Box recycling containers, and the fact that they were put out at the curb regularly for collection, made it obvious that others were recycling.

Guelph 2000 had residents stake the spot on their properties where their shade trees would be planted. The stakes were painted bright green and had the name *Guelph 2000* marked on them.

Your Program

How can you make the activity as visible as possible?

2 Provide additional "markers" of participation.

Examples

Quinte Regional Recycling put stickers on participants' Blue Boxes that read: "We Compost Too."

Earth-Works provided participating business establishments with door stickers advertising that they were active composters. This helped to reinforce composting as a community activity. They also provided residents with lawn signs.

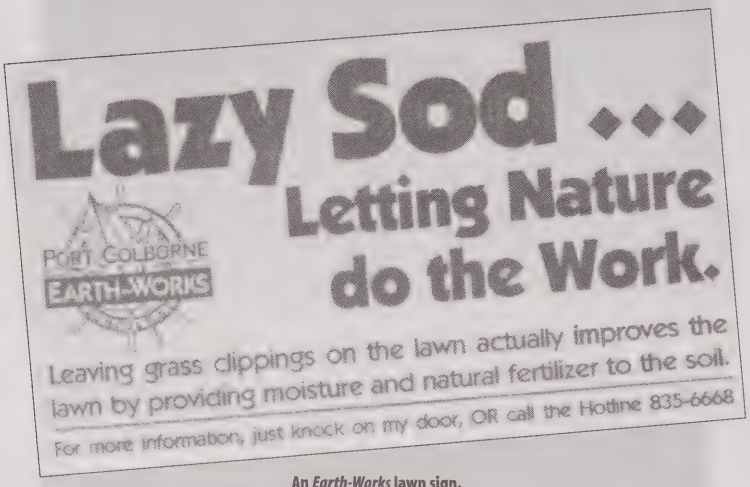
Your Program

How might you make use of the following?

- decals

When *ReCAP* teams were doing home visits they placed a sign on the resident's lawn to inform the neighbours.

Tip: This is particularly important if the activity itself cannot be made very visible.



An *Earth-Works* lawn sign.

- lawn, garden or window signs
- lapel pins

3 Build in opportunities for people to share their experiences and other forms of "word-of-mouth" promotion.

Examples

At each EcoTeam meeting, participants of the *Global Action Plan* shared experiences and results from the previous month.

People receiving home visits from *ReCAP* were urged, "If you were happy with the service you received, please tell others about it."

Your Program

For step-by-step instructions on this, see the Tool *Word-of-mouth.*

4 Record people's participation and show it to others.

Examples

Go Boulder, *JEEP*, *ReCAP* and *Quinte Regional Recycling* all illustrate the use of media stories that showed community members participating.

Tip: Show the involvement of appropriate "opinion leaders" — respected people in the community that others will emulate, such as local heros, or business, spiritual or political leaders.

During their home visits, *Earth-Works'* Compost Doctors pointed out how neighbours had overcome similar problems with their composters.

Your Program

How could you make use of the following?

- media and other stories of people participating

Guelph 2000 arranged garden tours to show off homes practising sustainable landscaping techniques.

- home/garden tours

Clean Air Commute posted the type and frequency of smog-reducing activity that each participant undertook, along with his/her name and signature. This information was displayed prominently at the worksite. At the end of each month, the results were collected by the coordinators and marked on the display.

- public commitments
- photo albums

The appeal that asked *Claremont* residents to recycle stated: "Over 80 percent of Claremonters favour the city's recycling program."

- statistics on community members' attitudes and participation

Obtaining a Commitment

? What is this Tool?

- Asking for a person's pledge or agreement to carry out the actions you are promoting, such as requesting that a person sign a statement or say a few words indicating his or her intentions.

? Why would you use it?

- Because people who have committed to an activity are more likely to do it. They are also more likely to agree to a subsequent, more demanding, activity.

? When would you use it?

- Ask for a commitment once you have established that the person is interested in doing the activity.

1 Establish that the person is interested in doing the activity.

Examples

ReCAP's Home Advisors asked residents to accompany them as they conducted their home audits. They observed any reactions at each stage of the process, and involved residents in drawing up a list of repair/retrofit priorities at the end of the visit.

Tip: Research shows that this tool will not work if the person is not already motivated to do the action or feels pressured to commit.

Your Program

How will you assess whether people are motivated to do the activity?

2 Ask for an oral or written pledge to do the action.

Examples

ReCAP asked residents to commit orally to carrying out the list of repair/retrofit priorities they had helped prepare.

In *Iowa City*, participants who were told that their names would be published reduced their natural gas and electricity usage by 10 percent to 20 percent. No significant reduction occurred when participants were assured of anonymity.

Tip: Research suggests that written pledges are likely to have a more lasting effect than oral ones.

Tip: Anonymous, private pledges (*private commitments*) have been shown to be less effective than those shared with others (*public commitments*).

Your Program

What sort of an agreement will you ask people to make?

- ❑ verbal, or
- ❑ written

- ❑ public, or
- ❑ private

When — and how — will you ask them to make the agreement?

3 If appropriate, ask for a number of increasingly demanding agreements over time.

Examples

The Toxic Challenge and *We're Toxic Free* first asked people to fill out a report card/questionnaire. Once this had been done, they asked the residents to agree to reduce their use of toxics.

Tip: It has been shown that agreeing to a small request can lead people to agree later to much larger ones.

Your Program

How might you lead people through a number of increasingly demanding agreements?

Learning from Other Programs

Verbal or Written Commitment	Public or Private Commitment	Environmental Sector	Commitment Case Studies
written	public	water efficiency	*Be Water Wise*
written	private	waste	*Claremont*
written	public	transportation	*The Clean Air Commute*
verbal commitment to a priority list prepared together	private	various	*Guelph 2000*
written	both	energy	*In Concert with the Environment*
verbal	both	energy	*Iowa City*
verbal commitment to a priority list prepared together	private	various	*ReCAP*
written	private	waste	*The Toxic Challenge*
verbal	private	waste	*Sheffield Mills Community Association*

Overcoming Specific Barriers

? What is this Tool?

- Techniques for identifying and overcoming barriers that are often specific to a particular environmental activity.

? Why would you use it?

Barriers are those factors that discourage people from taking an action they would otherwise do. If any environmental action is to be widely adopted by the public, common barriers to doing the action must first be removed.

? When would you use it?

Before designing your program, identify the specific barriers that might discourage people from taking action. Make arrangements for overcoming these barriers before you start implementing your program, and continue finding additional and more cost-effective ways to do so on an ongoing basis.

Provide personalized assistance in overcoming the barriers, if appropriate, once you have interested people in doing the activity.

1 Identify the specific barriers that commonly discourage people from doing the desired actions.

Examples

Get in the Loop — Buy Recycled found that far fewer people were actually buying recycled-content products than had been predicted on the basis of purchasing intentions. A telephone survey identified five main barriers that were preventing people from taking action: price, quality, low consumer awareness of product availability, consumer cynicism about environmental claims, and an unwillingness to put much effort into locating the products.

Go Boulder identified potential barriers for specific target audiences. For example, they found that one of the key factors discouraging business people from taking the bus was their concern about getting home if they had to work late or were in an emergency situation.

Your Program

Identify potential barriers by using a literature search, focus groups and/or telephone survey. Refer to the step-by-step instructions on page 8, "Getting Informed."

If practical, consider using, or get help in using, multivariate statistical analyses to determine the relative importance of each barrier.

2 **Consider the most important barriers identified in step 1. Rank them in the right-hand column and note some promising ways of addressing each.**

Examples

Guelph 2000 provided free shade trees, helped people to choose the right trees and decide where to plant them, and provided the names of contractors who would plant the trees if the residents preferred not to do it themselves.

Get in the Loop — Buy Recycled decided it could have little effect on two of five barriers, price and quality. It focused its efforts on overcoming the remaining three — low awareness, cynicism and lack of effort — using shelf talkers to identify recycled-content products at the point of sale.

Go Boulder decided that it was cost effective and critical to build more bikeways, as well as overpasses and underpasses for bikes and pedestrians, gradually over a number of years. To make their business transit pass more attractive, a Guaranteed Ride Home program was devised.

Tip: The chart at the end of this section may provide you with some ideas.

Tip: Physical barriers are often the most important to overcome.

Your Program

List the barriers in order of probable impact on your program, with the most critical ones at the top.

☐ Barrier 1:
How to address it:

☐ Barrier 2:
How to address it:

☐ Barrier 3:
How to address it:

☐ Barrier 4:
How to address it:

3 **Based on your research, consider the investment (including time and money) required to remove each barrier. Using the boxes provided in the right-hand column, mark an "L," "M" or "H" to indicate a low, medium or high investment requirement.**

4 **Weigh the importance of each barrier and the expected benefit from overcoming it, against the expected investment.**

5 **Circle the barriers you will focus on in order to get the greatest benefit from the resources available.**

6 Once you have found an effective way to overcome each barrier, ask yourself: do you need simply to inform people or will people require demonstrations or personal assistance to move through the barrier?

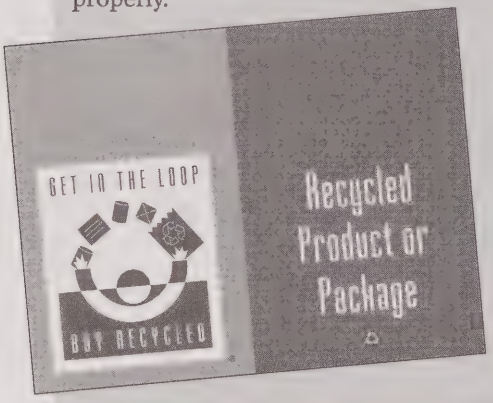
Examples

Get in the Loop — Buy Recycled was able to increase the purchase of recycled-content products by "simply" informing people — but this required an intensive campaign that included point of purchase reminders — "shelf talkers."

Go Boulder informed businesses about their Guaranteed Ride Home program.

ReCAP found that more people adopted their recommendations when the desired actions were demonstrated.

JEEP, *BC21 PowerSmart* and all of Ontario's Green Community programs provided the installation of energy and water conservation devices, to ensure that the devices would actually be installed, and installed properly.



A *Get in the Loop* shelf talker.

Your Program

For which barriers will informing people be sufficient? Make a list.

For which barriers will demonstrations or personal assistance be required? Make a list.

7 Ensure that people are, or will be, predisposed to doing the activity.

Examples

Get in the Loop — Buy Recycled identified a willingness to buy recycled if the key barriers could be overcome. In addition, it provided an extensive media and in-store promotion campaign.

In addition to offering the Guaranteed Ride Home program, *Go Boulder* provided discounts to promote its transit passes for businesses.

Your Program

What do you know about people's receptivity to doing the desired action?

If it is necessary to increase their receptivity, how will you do this?

- ❑ *Building Motivation Over Time*
- ❑ *Financial Incentives and Disincentives*
- ❑ *Norm Appeals*
- ❑ *Vivid, Personalized Communication*

8 Inform, demonstrate and provide personal assistance as required.

Learning from Other Programs

Barrier	How it was Overcome	Case Studies
cynicism over environmental claims	provided point-of-purchase labelling (shelf talkers) with promotional back-up	*Get in the Loop — Buy Recycled*
consumers unwilling to put much effort into locating and buying greener products, or otherwise participating	used point-of-purchase labelling (shelf talkers)	*Get in the Loop — Buy Recycled*
	delivered free Blue Boxes and composters door-to-door	*Quinte Regional Recycling*
	provided a house call service for selecting free shade trees	*Guelph 2000*
	picked up recyclables at the curb	*Quinte Regional Recycling*
	arranged for contractors to do the work	*JEEP*
cost	sold reusable lunch containers on parent-teacher nights	*Norway Public School*
	provided price incentives and subsidies	*Be Water Wise, Go Boulder, JEEP, Quinte Regional Recycling, ReCAP, The Environment Network*
	offered discounts for group participation	*Go Boulder*
	arranged for contractors to work at fixed, reasonable cost	*Be Water Wise, JEEP*
	arranged for low interest loans	*ReCAP*
parents' concerns about the safety of children biking to school	taught safe cycling skills, provided practice and involved the parents	*Bike Smarts* (Lochside School)
"yucky" to do	education programs reinforced how easy and clean it was to do (composting)	*Be Water Wise, Quinte Regional Recycling*
	arranged for contractors who performed work at a fixed, reasonable cost (toilet replacement)	*Be Water Wise*
for alternatives to driving to work, people's concerns about how to get home if they had to work late or were in an emergency situation	guaranteed a free taxi ride home under those circumstances	*Go Boulder*
lack of infrastructure support for green alternatives	gradually changed the infrastructure over time	*Go Boulder*

Peer Support Groups

? What is this Tool?

- Gatherings of neighbours, friends, colleagues, or other peers who may not have previously known each other.

Participants meet regularly for a period of time to support one another in taking the desired actions. When they come together they meet as equals.

? Why would you use it?

Peer support groups can provide ongoing opportunities and support for applying most of the other tools of change. The tremendous potential of such person-to-person approaches has been well demonstrated for other topic areas by groups such as Alcoholics Anonymous, and for environmental citizenship by the *Global Action Plan* (*GAP*).

? When would you use it?

Consider using peer support groups when barriers to change are particularly high, or the actions you want to bring about are numerous or complex. One example is used, *Global Action Plan*, which was founded in 1989 to preserve the earth's environment by helping people adopt "green habits."

1 Structure the groups so that people take turns playing leadership roles. Provide adequate support for the leaders.

▽ Examples

Members of *GAP's* EcoTeams took turns leading their meetings, with support from a *GAP*-trained volunteer coach who had already been through the program. The coach attended the group's first and last meeting, and provided telephone support in between for each person leading a group meeting. In turn, each person who led a meeting supported other group members in making changes related to that meeting.

A workbook led the group step by step through its activities. In addition, a Topic Leader Guide specific to each meeting's topic was provided to each of the group's leaders.

▼ Your Program

What support can you provide your group leaders?

2 Design group meetings so that all participants apply what is being discussed to their own households.

Examples

GAP participants analyzed how their households made use of resources. Then, using the workbook as a guide, they adopted specific actions each month at home.

Your Program

How can you ensure that participants apply what is being discussed within their own households?

7. Designate times for support calls (5 min.)

About a week after the meeting, you as topic leader need to call team members to offer them support in completing their action plans. Left on our own, our motivation often wanes — these calls make a big difference in assisting team members to fully carry out their action plans.

Decide the day and time of your support calls, and write them on your chart on the next page.

8. Review what team members need to do before next meeting (5 min.)

1. Take the transportation actions you planned.
2. Complete any incomplete actions or results forms.
3. Create your action plan for consumption (your next topic):
   - read over the actions, discuss them with your household, and decide which to do;
   - make a list of what to do to carry out those actions — whom to call, what to buy, etc.;
   - come with questions or concerns, and ideas for what support you may need;
   - schedule the day and time to do each action.

9. Celebrate the team's accomplishments (5 Min.)

Celebrate what the team has achieved. A celebratory end to the meeting you plan to do is: _____.

This portion of a Topic Leader Guide illustrates the level of support provided to the leader of each meeting, as well as the support provided by these leaders to the other members of their group. For further excerpts see *Global Action Plan* in the Case Studies.

3 Make sure that the groups are the right size.

Examples

GAP advised having 6-12 people per group. Organizers were told: "If there are too many people, there is not enough time in the meetings for each person to talk. If there are too few, the group is too small to generate the excitement and motivation that a larger group can create."

Your Program

What size groups do you want to create?

4 Set up the groups to meet at least six times, no more than two to three weeks apart.

Examples

GAP's EcoTeams met eight times, two weeks apart.

Your Program

How many times will your groups meet? How frequently will the meetings take place?

5 Provide group members with ongoing feedback and encouragement.

Examples

GAP's feedback methods allowed each participating member to see how their actions were affecting the environment positively. The activities of each EcoTeam were recorded and sent to a central and community database. These reports were translated into information about the amount of realized savings that each member of the EcoTeam had achieved. This information was fed back to the EcoTeam at the end of the program.

Information on the collective accomplishments of all EcoTeams was also tabulated and distributed in the EcoTeam newsletter, *Stewardship*. This newsletter provided past and current participants with information on global EcoTeam accomplishments and helped maintain behavioural changes in those members who had completed the program.

A Web site also provided feedback information. Other methods within each community included newspapers, TV, bulletin boards, computer networks, and awards.

Your Program

For step-by-step suggestions on doing this, please see the Tool *Feedback*.

6 Build in a sustainable process for recruiting new groups.

Examples

In the final sections of the *GAP's* Neighbourhood Lifestyles Program, members were encouraged to initiate at least two more EcoTeams and were provided with a standard recruiting script used to invite their neighbours to an informal introductory event at their homes. This introductory event educated neighbours about the program and helped them to decide whether they wanted to join a team.

Participants were prepared for this recruiting stage during their introductory event when *GAP* was described as a program for developing sustainable lifestyles *and then helping others to do the same.* At the first EcoTeam meeting, participants were introduced to the recruiting process and then asked: "Are you up to attempting to create two more teams at the end of the program?"

A 1996 study of recruiting in the U.S.A. found that 40 percent to 50 percent of individuals who were approached to attend an introductory event agreed to do so, and 85 percent of individuals who attended the introductory event joined EcoTeams.

Your Program

List some ways of helping participants recruit new groups.

How might you prepare participants for this role?

Prompts

? What is this Tool?

- A cue that reminds people to carry out an action they might otherwise forget to do.

? Why would you use it?

- Many people do not take action for the simple reason that they forget.

? When would you use it?

- Use prompts when people are already predisposed to doing an activity and just need to be reminded to do it.

1 Ensure that people are already predisposed to doing the activity and that key barriers that would prevent them from carrying it out are being addressed.

Examples

Research conducted by *Get in the Loop — Buy Recycled* showed that people were generally willing to buy recycled-content products. It also identified three key barriers that the program was therefore designed to overcome. In addition, the organizers provided an intense, broad-based promotional campaign to raise awareness about the program and prepare consumers for seeing the prompts.

Free Blue Boxes were given to residents in *Quinte*, so that they could conveniently place recyclables at the curb for pick up. A strong promotional and educational campaign instructed people about what materials were to be recycled and how to put them out for collection. In addition, the bright blue colour of the boxes helped establish a community norm for participating — people saw their neighbours doing it.

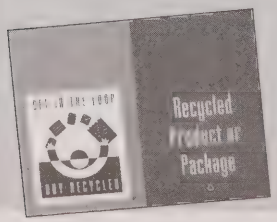
Your Program

For step-by-step instructions, see the Tools *Building Motivation Over Time*, *Financial Incentives and Disincentives* and *Overcoming Specific Barriers*.

2 Make the prompt noticeable.

Examples

The bright Blue Boxes used in *Quinte* were hard to miss. The "Beside and Inside" cards were 8.5" x 14" and printed in two colours.



***Get in the Loop's* shelf talkers were 4.25" tall by 5.5" wide (10.8 cm x 13.3 cm) and were printed in three colours. They carried the same logo that was used in all advertising and promotion.**

Your Program

What are some ways that you can ensure that your prompt is noticeable?

3 Describe in positive, clear terms the specific action that you want people to do.

Examples

Get in the Loop's posters asked shoppers to "Look for this Symbol" (the program logo on the shelf talkers).

Quinte's Blue Boxes carried the words, "We recycle." In some locations, decals were also placed on the boxes, listing the materials that could be placed in them for collection. In addition, the "Beside and Inside" cards listed which reyclables to put inside, and which to put alongside, the box.

Your Program

What are some positive words you could use to clearly identify the action you want people to take?

4 Ensure that the prompt is presented as close in time and space as possible to the action you want people to do.

Examples

Get in the Loop's in-store promotional items were placed near where the buying decision was made. The shelf talkers in particular were noticed by shoppers just as they were about to select each product from the shelf.

Quinte residents who saw their neighbours putting out their Blue Boxes the night before collection were reminded to do the same. The "Beside and Inside" cards were compact, attractive and sturdy enough that people put them up on their kitchen refrigerators.

Your Program

How might you do this?

Learning from Other Programs

Type of Prompt	Environmental Sector	Case Studies
poster at work, monthly tally sheets, posters, T-shirts and other items bearing a logo	transportation	*The Clean Air Commute*
decals applied to products at home	waste	*We're Toxic Free, The Environment Network*
view of neighbours' activity, "Beside and Inside" cards	waste	*Quinte Regional Recycling*
shelf talkers and other in-store promotional materials	waste	*Get in the Loop — Buy Recycled*

School Programs that Involve the Family

? What is this Tool?

- Activities introduced at school that students can do at home and that specifically involve other members of their families.

? Why would you use it?

School children are often more receptive to learning new ways of doing things than their parents. They can serve as powerful agents of change in reaching other members of their families. Furthermore, promotional programs in schools offer some particular advantages: for example, you may be able to assign activities, data collection, and analysis to students as home or class work; it may be easier to find ways of increasing the visibility of participation and making use of norm appeals; and it may also be relatively easy to provide individual and group feedback.

? When would you use it?

Use school place promotional programs in any of the following circumstances:

- when the activities you are promoting relate to the curriculum being taught
- when the activities begin, continue or end at school (e.g., lunch food routines, commuting practices)
- when the desired actions can be done both at school and at home (e.g., composting and recycling)

1 Help participants overcome any specific barriers that might prevent their taking action.

Examples

Lack of family support arising from safety concerns was found to be the major barrier to children riding to and from school. Lochside School's *Bike Smarts* program therefore focused on bicycle safety, kept parents informed, and encouraged them to participate and see the skills their children were acquiring.

To help parents comply with their litterless lunch program, *Norway Public School* sold subsidized reusable lunch bags containing reusable food containers.

Your Program

Identify and address specific barriers to your program by following the procedure outlined in the Tool *Overcoming Specific Barriers*.

2 Provide in-class instruction and testing related to the activities being promoted.

Examples

Bike Smarts provided in-class instruction on riding safety. To complete the program, the students were required to pass both a written test and an "on-bike" cycling skills test.

Your Program

How do the activities being promoted fit into the school curriculum? Outline possible in-class activities and the time required for each.

3 Provides students with opportunities to practise the actions under supervision.

Examples

Participants in Lochside School's *Bike Smarts* program took part in five neighbourhood trips and one longer field trip, during which they practised their cycling skills.

Norway Public School had volunteer lunch room monitors remind other students to separate compostable scraps and recyclables and to place them in collection bins.

Your Program

What supervised practice opportunities can you provide?

4 Ask that the actions be practised repeatedly at home.

Examples

To qualify for the field trip at the end of the program, Lochside School's students were required to have cycled 100 km during the six-week period of the program.

For children to bring litterless lunches to school in *Norway Public School's* Litterless Lunch Program, parents had to change their use of disposable packaging at home.

Your Program

How can you encourage home practice of the actions?

5 Involve other members of the family.

Examples

Bike Smarts strongly encouraged parental participation in its neighbourhood outings and field trip. As a direct result of the program, 4 of the 16 parents cycled at least 20 percent more than they used to.

Whitney Public School asked parents to monitor their children's recycling efforts, to help their children count the number of items recycled during a week, and to indicate if their children had satisfactorily completed an assignment. To participate actively, the parents needed to read a recycling flyer from the local public works department.

In Concert with the Environment required students to question each member of their households about energy use. The resulting data were brought to school and analyzed.

Your Program

How might you involve other members of the family?

- involve parents in practising/doing the activity with the students
- have parents check students' achievements
- have students collect data from their families

The students at *Whitney Public School* took over their homes' recycling activities for a week. This enabled them to see where improvements could be made by the household and encouraged them to promote these changes in their homes.

In Concert with the Environment coached each student on drawing up a plan of action with his or her household to save energy at home. Once completed, it was signed by both the student and the head of the household.

- have students assume household responsibilities that will affect others in their homes (e.g., recycling)
- ask the entire family to make a commitment to participate (see the Tool *Obtaining a Commitment*)

6 Ask students to record their actions and achievements in some way (e.g., in a journal).

Examples

Lochside School's program (*Bike Smarts*) had participants record the distances biked.

Students at *Whitney Public School* weighed or counted the amount of each type of material they recycled and plotted the information on a graph.

Global Action Plan provided a place in the workbook for participants to record the actions they had taken at home.

Your Program

Specify the methods you will provide for students to record their actions.

7 Provide incentives and disincentives.

Examples

Lochside School's program offered three key motivators: an attractive end-of-program field trip, an opportunity for students to get out of school, and stickers for completion of each part of the *Bike Smarts* Program.

The United Nations Environmental Program (UNEP) provides a "Global Hero Award Program" to motivate children participating in *GAP's* Journey for the Planet. This program acknowledges children's success stories, and provides certificates and patches for completing a certain number of the actions promoted.

Your Program

Follow the procedure outlined in the Tool *Financial Incentives and Disincentives.*

8 Provide feedback.

Examples

As Lochside School's *Bike Smarts* students learned safety skills, they were awarded achievement stickers and were given a certificate on completion of the program.

Using home energy use data collected by each student, *In Concert with the Environment* provided participating households with personalized computer reports with suggestions for improvement.

Your Program

List the possibilities for providing feedback for your own program. See the Tool *Feedback.*

Vivid, Personalized Communication

? What is this Tool?

- Communication full of the vigour and freshness of immediate experience, evoking lifelike images that are heard, seen, or felt as if they were real.
- Communication that has been custom-tailored for the person or people receiving the message.

? Why would you use it?

- Vivid, personalized information is more likely to be noticed, remembered and acted on.

? When would you use it?

- Whenever possible.

1 Identify the key motivators and barriers for the desired activity.

Examples

Get in the Loop used a telephone survey to determine why people were not buying more recycled-content products.

When participants expressed concern to *The Environment Network's* home advisors about the effectiveness of the alternative cleaning products they were promoting, these concerns were addressed directly. In addition, such comments were used to identify people who might be motivated by concerns about cleanliness and hygiene.

Tip: With face-to-face approaches you can look for clues and ask questions that identify the most important motivators and barriers for each person you contact. Train your program implementers to do this.

Tip: See also the Tools *Building Motivation Over Time* and *Overcoming Specific Barriers*.

Your Program

Please refer to the step-by-step instructions for identifying motivators and barriers on page 8, "Getting Informed."

Make a list.

Motivators:

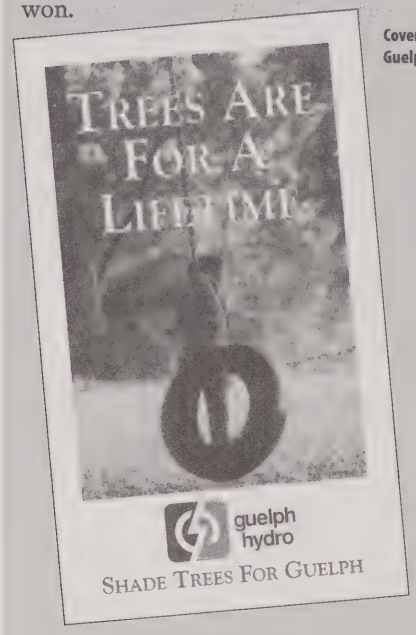
Barriers:

2 Appeal to these motivators and show how to overcome these barriers in ways that evoke strong lifelike images.

Examples

When *The Environment Network's* home advisors found people who seemed particularly motivated by concerns about cleanliness and hygiene, they asked them to consider the link between their water supply and household hazardous wastes spilled down the drains and toilets in their homes.

Go Boulder's "Non-Polluting Commuter Race" pitted cyclists against motorists in a cross-town competition, to demonstrate the convenience of riding a bicycle. Three opponent pairs (three cyclists and three motorists) were given simple tasks or errands to run en route to the finish line. Both motorists and cyclists were required to park legally and obey all traffic laws. Every year the bicyclists won.



Cover of the Shade Trees for Guelph brochure.

The promotional brochure for *Guelph 2000's* shade tree program said: "The shade of a tree is that special place to curl up with a good book; to talk with your best friend; or to just dream away a hot summer afternoon." Its cover showed a child swinging from a tire tied to a tree.

Tip: Use images that are as close as possible to the experience of the person or people with whom you are communicating.

Tip: If you are talking about something that is intangible, make it more tangible. If the person does not have much experience with it, relate it to something with which they have more experience.

Tip: Use as many senses as you can since some people are more auditory, others more visual, others more kinesthetic.

Your Program

For each of the motivators and barriers listed in step 1, which of the following might be helpful?

- ❑ link to activities people are already doing

Pacific Gas and Electric trained home assessors to appeal to concerns about heat loss, energy costs and comfort, as follows:

> You know, if you were to add up all the cracks around these doors here, you'd have the equivalent of a hole the size of a football in your living room wall. Think for a moment about all the heat that would escape from a hole that size. That's why I recommend you install weather-stripping. And your attic totally lacks insulation. We professionals call that a naked attic. It's as if your home is facing winter not just without an overcoat, but without any clothing at all.

❑ describe the full effect of combining many small, contributing factors

Peterborough Green-Up used a blower door test to estimate the combined total size of all the gaps in a home. They also asked residents to feel the air rushing in at several trouble spots.

In Concert with the Environment used bar charts to show the "Eco-benefits" and dollar savings that participating households could obtain, as well as those already achieved. Tree icons were used to show Eco-benefits and dollar signs to indicate the money saved.

❑ use bar or pie charts to illustrate statistics and other numbers and make the charts "come alive" by using vivid icons as labels

Tip: Make comparisons with well-known landmarks.

Residents in *Claremont* were told: "Californians alone produce some 40 million tons of refuse a year — enough to fill a two-lane highway ten feet deep from Oregon to the Mexican border. Currently, the average person in the U.S. produces about 1,300 pounds of solid municipal waste a year. Most of this trash goes into landfills, and if present trends continue, nearly all of L.A. County will be without refuse disposal capacity by 1991."

List some examples of vivid, personalized communication that might be effective for your program.

The promotional brochure for *Guelph 2000's* shade tree program said: "One mature tree has the cooling capacity of ten room-sized air conditioners."

We're Toxic Free used a simple, non-confrontational questionnaire to engage residents. Of the people they approached in this manner, 6 out of 10 agreed to participate further.

The Ontario Green Communities of *ReCAP* involved residents in analyzing their utility bills.

See also the Tool *School Programs that Involve the Family*.

Word-of-Mouth

? What is this Tool?

Word-of-mouth promotion happens whenever one person tells others about the activity being advanced. For example, when someone tries a new bike path, likes using it and tells another person about it, the use of the bike path is being promoted by word-of-mouth.

? Why would you use it?

Word-of-mouth is often responsible for the bulk of learning about and adopting a new behaviour. For example, *BC21 PowerSmart*, *Guelph 2000*, *ReCAP* and *The Environment Network* all found that it was one of the main ways of getting bookings for their home visits. Furthermore, word-of-mouth is essentially free of charge.

? When would you use it?

- Design methods to stimulate word-of-mouth promotion at all stages of your program.

1 Provide program participants with an experience of such quality that they will want to tell others about it.

Examples

Several weeks after each home visit, *BC21 PowerSmart* returned to the homes to verify that products left behind had been properly installed and that residents were satisfied.

Your Program

How will you monitor and ensure people's satisfaction with your program and the activity you are promoting?

2 Leave participants with "show and tell," and other promotional materials to encourage and help them to tell others.

Examples

ReCAP left promotional pamphlets with participants to distribute to others.

JEEP used pens, hats, T-shirts and key chains with logos on them.

Your Program

What could you leave behind to encourage word-of-mouth promotion?

3 Consider arranging introductory sessions to which participants can invite their friends and acquaintances.

Examples

At the end of each *GAP* program, group members were asked to invite others to an introductory session hosted by their EcoTeam. A suggested script was provided.

Your Program

Would this work for your program?

4 Ask participants to agree to tell others.

Examples

People receiving home visits from *ReCAP* were simply asked: "If you are happy with the service you received, please tell others about it." This request was made orally at the end of the visit and was repeated on the recommendation sheet left with the residents.

Recycling neighbours in the city of *Claremont* were recruited to invite their non-recycling neighbours to participate.

Participants first heard about *GAP* as "a program for developing sustainable lifestyles and *helping others to do the same*." At their first meeting, they were reminded of this goal, introduced to the recruiting process, and asked: "Are you up to attempting to create two more teams at the end of the program?" At the end of the program, each participant was asked to invite people to an introductory event.

Tip: Research shows that this approach will not work if the person is not interested in spreading the word or feels pressured to do so.

Tip: See the Tool *Obtaining a Commitment*.

Your Program

How and when will you ask for this agreement?

5 Provide feedback on individual and group achievements that participants can share with others.

Examples

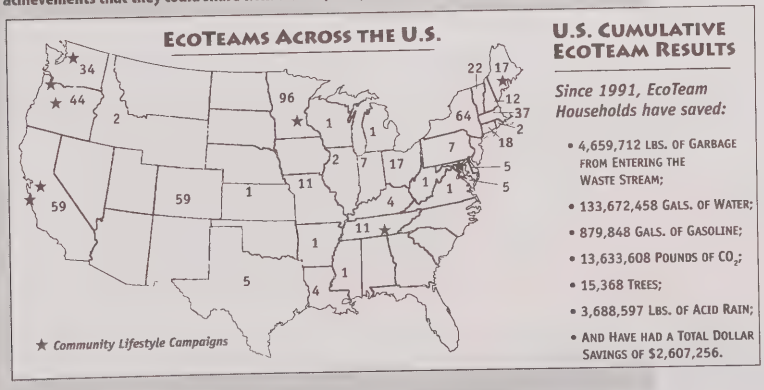
GAP provided each EcoTeam with information on what they had achieved and sent past and current participants quarterly information on global EcoTeam accomplishments.

Tip: See the Tool *Feedback*.

Your Program

How will you provide feedback?

This map provided past and current *GAP* participants with information on global program achievements that they could share with others (1996).



Work Programs that Influence the Home

? What is this Tool?

- Programs run in the workplace to influence people at home, or while commuting between home and work.

? Why would you use it?

Workplace promotional programs represent an additional way of reaching people and offer some particular advantages. For example, it may be easier to find ways of increasing the visibility of participation and norm appeal; to collect certain types of information (e.g., self-reported information); and to provide individual and group feedback.

? When would you use it?

Use workplace promotional programs when:

- the targeted activities begin or end at work (e.g., commuting practices), and/or
- the targeted behaviours are done both at work and at home (e.g., composting and recycling).

This approach, used in some of the programs discussed in this Workbook, is promising. The use of work programs that influence the home, however, needs further evaluation. We would benefit from your help — if you are using this approach or know of others who have used it, please use the Quick Correspondence Form on page 175 to share this information with us.

Learning from Other Programs

Environmental Sector	Case Studies
transportation	*The Clean Air Commute*
transportation	*Go Boulder*

Case Studies

This section contains Case Studies of community programs from across North America. It includes a broad sampling of programs to offer a wide variety of approaches and tools used, locations, types of organizations and participants, activities being promoted and problems being addressed. Most of these Case Studies illustrate approaches that have worked. However, examples of potential pitfalls are also included to provide you with a realistic map of the terrain ahead.

All the Case Studies and examples are described in the past tense, including programs that are still operating. If the program is still operating, the Case Study *summary* is written in the present tense.

Contents

Case Study

BC21 PowerSmart

BC21 PowerSmart is a province-wide project to conserve resources and create jobs. Residential energy efficiency audits are conducted, and incentives are offered to encourage residents to take steps to improve energy and water efficiency.

Tools used

- Financial Incentives and Disincentives
- Home Visits
- Mass Media
- Overcoming Specific Barriers
- Word-of-mouth

Initiated by

- Government of British Columbia

Partners

- B.C. Hydro
- B.C. Gas
- Pacific Northern Gas
- West Kootenay Power
- Centra Gas
- B.C. Credit Unions

Results

Estimates suggest that 21 Gwh of electrical energy were saved; natural gas consumption was reduced by 140,000 GJ; and water consumption declined by 3.5 million m^3.

Background

In April 1995 the British Columbia Government joined forces with the province's electric and gas utilities and credit unions to implement *BC21 PowerSmart*. Rather than focusing on efficiency improvements for either gas or electricity, as past programs had tended to do, a comprehensive approach was taken that addressed both.

Setting Objectives

BC21 PowerSmart gave itself goals of:

- reducing water consumption by 3.8 m^3
- achieving a 21.7 Gwh reduction in electrical energy consumption
- reducing natural gas consumption by 145,000 GJ
- creating 488 person years of employment

Delivering the Program

Four contractors were retained to carry out one-hour energy efficiency audits in their regions (*Home Visits*). They, in turn, hired and trained the home audit teams, each of which was usually made up of one woman and one man. Once the audit was completed, the team offered to install any energy-saving products which were needed, with a limit of one of each product per home. The products included a hot water tank blanket, pipe insulation, weather-stripping, caulking, gasket plugs, faucet aerators, flush reducers, and low-flow shower heads. As an incentive to participate, both the audit and the products were provided free of charge (*Financial Incentives and Disincentives*).

At the end of the home visit, recommendations for further action were made. Information brochures were left behind, along with discount coupons for additional products such as compact fluorescent light bulbs, gas fireplaces, energy-efficient windows and set-back thermostats. Less than 1 percent of the coupons were redeemed.

Several weeks after the installation was complete, utility employees returned to the homes to verify that the products had been installed correctly and that the householders were satisfied.

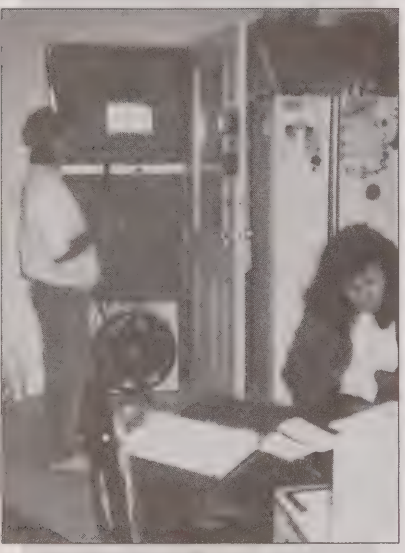
To promote the program, advertisements were aired on television and radio, and several radio talk shows featured the program. Newspaper and magazine advertisements invited residents to enrol

BC21 PowerSmart

A First Nations staff person installing weather-stripping in the Okanagan First Nations Community Project.

for a home audit. Municipal representatives were invited to visit selected homes in each community to "observe" local installations, and these events were publicized. Ads were also placed on the sides of buses and included as inserts in utility bills. The program was promoted by staffing booths at shopping malls, special events and home shows — these approaches were found to be too labour intensive.

While the communications campaign was instrumental in informing the public about *BC21 PowerSmart*, word-of-mouth was found to be the catalyst which prompted most people to enrol in the program (*Word-of-mouth*). Of all calls for appointments, 60 percent to 80 percent were made by people who had spoken to a relative or neighbour who had received a home visit and was very satisfied with the experience.



A home visit team using a blower door test to measure home air leakage in the Okanagan First Nations Community Project.

Okanagan First Nations Community Project

An extended version of the *BC21 PowerSmart* project was introduced in the Okanagan Valley — one of four community-based *PowerSmart* projects. In addition to creating jobs and conserving resources, this program also focused on training First Nation members and improving their housing stock. The home visits were similar to those described above.

A *BC21 PowerSmart* Okanagan First Nations Committee, made up of representatives from each of the six participating bands, was established to provide input about the specific needs of the community. This was essential for the program's success, as there were some very sensitive issues which needed to be addressed, including political friction between band chiefs and the government, and a general mistrust of the government within the community. It was important to introduce the program as being neutral. To help achieve this, the project manager's office was set up in his home in the Okanagan Valley, rather than in a government or band council facility. To help overcome scepticism about the project by householders, First Nations members were hired as staff (*Overcoming Specific Barriers*).

Staff who conducted the home visits received on-the-job training from professional installers in basic building technology, product installation, customer service, and documentation and reporting. This helped them to provide related services to their own community, and to compete for utility and government contracts.

Project participants reported being very satisfied with the products and the level of service they received. They were happy that the project provided a service from which they could benefit. Some reported that they did not often see where and how monetary aid was spent for the benefit of the community.

BC21 PowerSmart

Measuring Achievements

At the conclusion of each home audit, the installer completed a form indicating what products had been installed. This information was used to estimate the resulting savings in water and energy consumption from the program.

A follow-up survey was conducted with 5,000 participants to measure satisfaction with the installations and to determine how many additional products were purchased by residents after their home visits. Most of the interviews were carried out by telephone, but a portion were completed during the quality assurance visits. As of March 1997, the results of this survey were not yet available.

Providing Feedback

A letter of thanks was published in local newspapers and announcements were made on the radio. People across the province were thanked for their participation and were informed of how much energy and water had been saved.

Financing the Program

Twenty million dollars was budgeted for this program. At the end of 1996 about $15 million had been spent on the following:

Installations	$11,600,000
Salaries	$ 1,240,000
Special projects	$ 1,005,000
Advertising and promotion	$ 900,000
Overhead	$ 580,000
Training	$ 37,000
Credit facility set up	$ 25,000
Other	$ 125,000

Funding was provided by:

B.C. Government	$ 15 million
B.C. Hydro	$ 3 million
Utilities, Credit Unions and Greater Vancouver Regional District	$ 2 million

Results

As of June 30, 1996, the estimated annual resource savings were:

Electricity	21.2 Gwh
Natural Gas	139,520 GJ
Water	3,520,856 m^3

Case Study

BC21 PowerSmart

Total job creation to June 30, 1996, directly due to the program, was 493.7 person years. In addition, 81,345 audits were completed, and 27 credit unions had granted 56 loans (average amount of $6,059) through the loan program.

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Case Study

Be Water Wise . . . It Makes Cents

To promote water efficiency and reduce water consumption, residents were offered home visits conducted by trained volunteers and the opportunity to obtain discounts on home water-saving devices.

Tools used

- Building Motivation Over Time
- Financial Incentives and Disincentives
- Home Visits
- Norm Appeals
- Obtaining a Commitment
- Overcoming Specific Barriers

Initiated by

- The Clean Nova Scotia Foundation

Partners

- Environment Canada
- Atlantic Chapter of American Water Works Association
- Canada Water Works Agreement
- Halifax County
- Town of New Glasgow
- Crane

Results

No significant results to date.

Background

In April 1996, The Clean Nova Scotia Foundation launched the *Be Water Wise ... It Makes Cents* program in response to concerns about diminishing supplies of clean water. It was implemented in the three municipalities of Sackville, Bedford (urban) and New Glasgow (rural), with a total population of 55,000.

Getting Informed

To test their assumption that cost and convenience could be barriers to participating in a water conservation program, The Clean Nova Scotia Foundation conducted preliminary research through the Internet to investigate other water conservation programs that had been implemented in Canada and the United States. This research substantiated their assumptions, so the program was designed to minimize or eliminate these barriers.

Originally, the *Be Water Wise ... It Makes Cents* program was to include kits containing only low-flow shower heads and faucet aerators. The program was modified to include the ultra low-flow toilets when research revealed that water consumption could be reduced by 20 percent in homes which installed these water-saving devices.

Delivering the Program

The campaign began with a news conference on Earth Day, April 22, 1996, during which organizers displayed and described the water-saving devices. Local radio and television stations aired news releases, public service announcements, interviews and quizzes. Local newspapers featured stories about "waste-wise" families, and printed much of the same information covered by radio and television. The program was also promoted in the three municipalities' newsletters. Inserts were included in telephone and power bills.

An Internet Web site provided information on the program, and further information was provided at Bedford Days, Arbor Day, Canada Day, as well as at home shows. Community centres, public libraries, museums, and The Clean Nova Scotia Foundation affiliates (Bedford and New Glasgow EnviroTown Programs) were also provided with information.

One hundred households selected from each of the three communities received a 10-minute home visit conducted by trained volunteers (*Home Visits*). During this visit the program was outlined and

Be Water Wise . . . It Makes Cents

Looking for a Commitment...A Water-wise Commitment

Times are tough, and commitments can be hard to come by these days. But we want your household's commitment—commitment to become water-wise. Unlike many commitments, this commitment means less stress—less stress on your municipality's water supply and waste water treatment plant, and less stress on both your bankbook and your municipality's bankbook, because saving water means saving money!

Your new commitment to conserving water could include one or all of the following suggestions, or maybe you have your own ideas on how you could save on water. The choice is yours. But remember, we want your household to commit for a year. (We hope it becomes the commitment of a lifetime.)

Because we realize that commitments takes effort and thought, we would like to recognize your commitment. All committed water savers will be publicly recognized in the local newspaper and at a news conference/celebration next year. Each household will receive a **Be Water-wise...It Makes Cents** sticker to display in their window.

SOME WATER-WISE IDEAS...

For The Bathroom

- Only flush when necessary.
- Keep the showers brief, and turn the shower off when soaping down.
- Don't run the water when brushing your teeth or shaving.

In The Kitchen

- Always have a full load of dishes before using the dishwasher.
- Compost your food rather than use a sink garbage disposal which uses large volumes of water.
- Fill the sink with a small amount of water when scrubbing and rinsing vegetables.
- Only do a wash when you have a full load or adjust the water level on your washer if necessary.

The *Be Water Wise* commitment form, judged as too long and complicated by participants (second page of form appears on next page).

Be Water Wise . . . It Makes Cents

Out of Doors

- Water your lawn only when necessary, using the "deep water" method.
- Collect rain barrels of water for watering plants and washing cars.
- Landscape your lawn with plants and shrubs that are native to the region. They generally require little more than what nature provides.
- Use a hose with a trigger nozzle along with a bucket and sponge to wash your car, rather than a running hose.

YOUR COMMITMENT

We, the _____ household are proud to announce our new commitment to conserving water for the next year includes:

_____

_____

_____

Signature _____ Date _____

If you did not give this form to your water-wise volunteer, phone in your commitment at 420-3474, or fax in your commitment at 424-5334 or mail it to The Clean Nova Scotia Foundation, 1395 Bedford Row, P.O. Box 2528 Station Central, Halifax, NS B3J 3N5.

The second page of the *Be Water Wise* commitment form, judged as too long and complicated by participants (the first page of the form appears on the previous page).

an information package on water conservation delivered. The package contained an explanation of the program, a fact sheet on waste reduction, a brochure explaining why and how to conserve water in the home, and a program sign to post in the window (*Norm Appeals* and *Building Motivation Over Time*).

Following this, participants were asked to sign a commitment form stating that they would reduce water consumption for one year. The participants were told that all committed water-savers would be publicly recognized in the local newspaper and at a news conference the next year (*Obtaining a Commitment*).

Ninety-two participants from this group signed commitment forms. People commented that the form was too long and complicated.

A second group of 300 households (100 from each community) were given the opportunity to receive a retrofit kit in addition to a 20-minute home visit and the information package. The retrofit kit offered participants a rebate of $9 per low-flow shower head, $5 per faucet aerator, $177 per ultra low-flow toilet and $30 per toilet installation (*Financial Incentives and Disincentives*). The total cost per household was estimated to be $219 before the rebate; $75 plus tax after the rebate. Since running the program, The Clean Nova Scotia Foundation has decided that it would be more cost effective to pay the rebates through the local water utility bill. This would reduce the administrative and accounting costs of issuing rebates by combining them with an existing billing system.

These rebates were used to overcome the cost barrier identified in the initial research. The convenience barrier was addressed by the home visits and by providing a list of approved plumbers who could install the toilets (*Overcoming Specific Barriers*). Following the home visit, a public commitment to reduce water consumption for one year was also requested from this group.

Measuring Achievements

Water consumption levels were measured for two months preceding the program launch, and periodically throughout the program.

Participants were randomly selected from each of the three municipalities. A third group of 300 randomly selected residents served as a control group, who did not receive a home visit and were not asked to make a commitment to the program. Their only source of information about the *Be Water Wise* program was the public education campaign.

All the participants were asked to complete a telephone survey at the end of the summer of 1996. This survey measured changes in attitudes and water consumption behaviour.

Be Water Wise . . . It Makes Cents

Financing the Program

The budget for the *Be Water Wise ... It Makes Cents* program was $45,000. Operating costs amounted to $30,000, as follows:

Salaries	$15,000
Printed material	$ 600
Advertising	$ 4,400
Other	$10,000

The cost of subsidies for the water-saving devices was $15,000.

Results

The response to the retrofit kit approach was poor. Apparently, the public education campaign had not adequately prepared residents who were visited to consider purchasing the water-saving devices. When they were later offered to all residents in the three communities through a message printed on their water utility bill, the remaining kits were sold.

The Clean Nova Scotia Foundation felt that a stronger education campaign would result in more interest in water conservation and the installation of water-saving devices. They expressed that, in future, they would like to allocate more money toward education.

At the time of writing, this project was still ongoing. The results to date have not shown any significant reductions in water usage, relative to the control group.

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Case Study

Bike Smarts

The *Bike Smarts* program was introduced in Lochside Elementary School to educate students about bicycle safety and to encourage them to travel by bicycle. As part of the program, parents of the students became involved in cycling to school with their children and participated in a cycling field trip.

Tools used

- Overcoming Specific Barriers
- School Programs that Involve the Family

Initiated by

- Lochside Elementary School

Results

Parents allowed their children to ride to school more often after the program and some parents began cycling more often than they used to. All of the parents thought that their children's motivation for cycling had increased since participating in the program.

Background

In 1996, Lochside Elementary School in Victoria, British Columbia, used the *Bike Smarts* public education program initiated by the B.C. Ministry of Transportation and Highways to provide teachers and cycling instructors with the tools for teaching children bicycle safety and to encourage bicycle use.

Delivering the Program

Bike Smarts was a provincial program that promoted bicycle safety among students between the ages of seven and thirteen. Launched in February 1996, *Bike Smarts* elicited interest by sending information to each school, conducting information sessions at teachers' conferences, and providing a contact point for instructors to get help at any time. The program package sent to the schools that registered included:

- a handbook
- a helmet safety video
- a *Bike Smarts* poster
- supplementary material
- a survey to be completed by instructors

Twenty-eight students in the grade 4 class at Lochside Elementary School participated in the bicycle safety program conducted for a six-week period in May and June of 1996 (*School Programs that Involve the Family*). Information brochures from *Bike Smarts*, consent forms, and bicycle maintenance forms were sent home with the children to keep parents informed and help increase their awareness of bicycling safety.

The children received in-class instruction on riding safety and took part in five neighbourhood trips to practise their riding skills. Students, with their parents, were also encouraged to cycle to and from school. To complete the program, they were required to pass both a written test and an "on-bike" cycling skills test. The highlight of the program was a 30-km bicycle trip to Saltspring Island (15 km each way) where a barbecue and activities were organized. To qualify for the field trip, the students were required to have cycled 100 km during the six-week period and to have kept a journal of how far they had travelled. Parental participation was strongly encouraged on the neighbourhood outings and the field trip.

Case Study

Bike Smarts

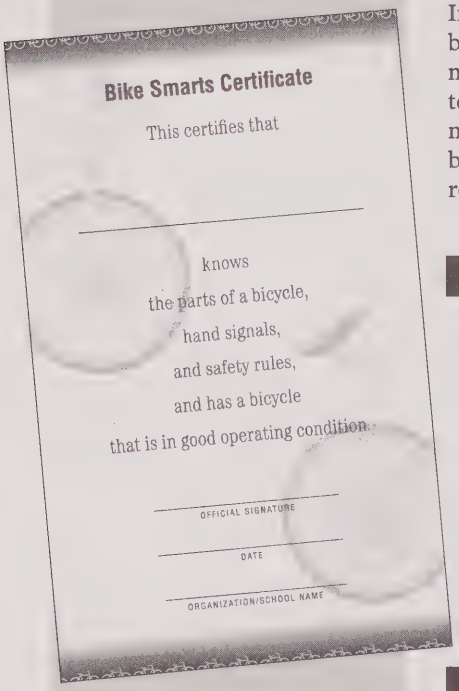
As safe cycling incentives, participants received brightly coloured skill achievement stickers for completion of each step, to be placed on personal, wallet-sized "I Have Bike Smarts" cards.

The children were highly motivated to take part in the program because they looked forward to the field trip. The neighbourhood outings and field trip were also all held during school time — being able to "get out of school" was very appealing.

The major barrier to children riding to and from school was not a lack of interest on the part of the students, but a lack of family support arising from safety concerns. This barrier was overcome by keeping parents informed, stressing safety, and encouraging parents to participate so they could see for themselves the skills the children were acquiring (*Overcoming Specific Barriers*). It was hoped that parents would continue to ride with their children after the program had ended.

Measuring Achievements

In the fall of 1996 a survey was sent home with each participant to be filled out by the parents. The questionnaire was used to determine parents' attitudes on how well the program had succeeded in teaching the children bicycle safety. It also served to obtain information about how often the students and parents cycled, both before and after the program. Sixteen surveys were completed and returned.



Bike Smarts Certificate

This certifies that

_____

knows
the parts of a bicycle,
hand signals,
and safety rules,
and has a bicycle
that is in good operating condition.

_____
OFFICIAL SIGNATURE

_____
DATE

_____
ORGANIZATION/SCHOOL NAME

***Bike Smarts* certificate.**

Results

- Most of the parents allowed their children to ride to school more often after the program. This was apparently related to the program making it safer for their children to cycle.
- As a direct result of the program, 4 of the 16 parents reported cycling at least 20 percent more than they used to, two of them 40 percent to 50 percent more.
- All of the parents thought that their children's motivation for cycling had increased since participating in the program.

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Case Study

Bike Smarts

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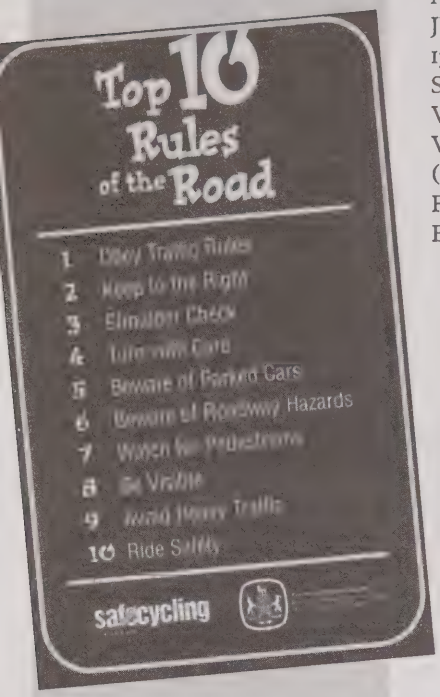


The back of the *Bike Smarts* card.

Case Study — Claremont

To find effective ways to increase public participation in recycling, two studies were undertaken in the City of Claremont, California. In each case, trained volunteers went door-to-door contacting members of non-recycling households. Two approaches were tried — one using Boy Scouts, and the other using neighbours as volunteers.

Tools used

- Building Motivation Over Time
- Home Visits
- Neighbourhood Coaches and Block Leaders
- Norm Appeals
- Obtaining a Commitment
- Vivid, Personalized Communication

Initiated by

- Researchers Shawn Burn and Stuart Oskamp

Partners

- City of Claremont
- Boy Scouts
- Volunteer community members

Results

Boy Scout visits led to a 40 percent recycling rate and block leader visits led to a 60 percent recycling rate in households that did not previously recycle.

Background

In the 1980s, less than 30 percent of the residents of Claremont, California, were bringing their recyclables to the curb for collection. A literature review revealed that improvements in participation rates gained through the use of incentives often ended when the incentives were removed. The review suggested that persuasive communication, and obtaining a written or verbal commitment were effective ways to cause lasting changes in behaviour.

Delivering the Program

Block Leader Study

Residents were recruited from households that consistently recycled, to act as recycling block leaders (*Neighbourhood Coaches and Block Leaders*). The invitation to be a block leader went something like this: "We've noticed your recyclables at the curb on trash day and we wish there were more people like you. Our latest strategy to increase recycling is to have people who are already recycling explain to their neighbours how easy and important it is. I've got a list right here of 10 of your non-recycling neighbours. Would you be willing to be a recycling block leader?" Out of 13 households approached, representatives of 8 agreed to be block leaders.

The block leaders were trained to visit about 10 previously identified non-recycling neighbours (*Home Visits*). After introducing themselves and explaining their appointment by a city committee, they provided householders with a recycling information sheet.

A vivid, personalized communication (*Vivid, Personalized Communication*) was then delivered orally, using a graphic description of the amount of waste generated. The statement also linked recycling to accepted beliefs (patriotism) and practices (taking out the trash) (*Building Motivation Over Time* and *Norm Appeals*).

The block leaders helped overcome barriers to participation by clearly explaining how convenient recycling really is and how an individual's contribution makes a difference to combating waste problems. They also provided the household with three mesh recycling bags. To further build motivation, the block leaders ended their visit with the statement: "I hope to see your bags out at the curb in a few weeks."

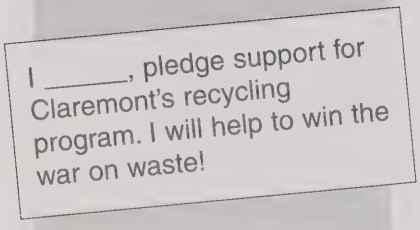
Case Study

Claremont

For the purposes of comparison, a second group of households, an "information at door only" group, simply had the information sheet, recycling bags and a written copy of the speech supporting recycling left at their doors. A third group, used as a control, received neither the information nor the visit.

Boy Scout Study

Boy Scouts were also trained as messengers to non-recycling households. Their association with honesty and concern for nature made them a credible choice. After introducing themselves to householders, they cited some advantages of recycling and described how to recycle with the city program.



In one approach, Boy Scouts asked householders to sign this pledge card.

They then administered one of three approaches. In one approach householders were asked to read a persuasive communication, essentially the same as that used by the block leaders.

In a second approach, householders were asked to sign a pledge card (*Obtaining a Commitment*). They were also provided with a sticker containing an attractive logo and the words: "I Recycle to Win the War on Waste."

The third approach combined both the communication, the pledge card, and the sticker. All three approaches ended with householders being offered mesh recycling bags.

Financing the Program

The block leader approach was slightly more costly to administer than the Boy Scout approach, because of the additional time required to recruit volunteers. It took approximately three to four hours to obtain the eight block leaders in the study. However, block leader recruitment could be done by members of a local community or by environmental groups, students, or other volunteers.

Results

Boy Scout visits led to a 40 percent recycling rate among non-recycling households, based on a six-week follow up. In the block leader study, 60 percent of the non-recycling households contacted in person recycled at least once during a 10-week follow-up and 28 percent began to recycle weekly. In the group receiving information at the door only, 38 percent recycled at least once and 12 percent did so on a weekly basis. In the control group, 20 percent recycled at least once and 3 percent recycled on a weekly basis.

All three approaches delivered by the Boy Scouts were found to be equally successful in motivating recycling behaviour. Approximately 40 percent of the homes in each group subsequently recycled at

Claremont

least once during a six-week follow-up observation period. In comparison, only 11 percent of the control group recycled at least once.

Taken together, the results of both studies suggest that a persuasive message delivered to the door can improve recycling rates significantly, and that a home visit can further increase participation rates. The apparent failure of the Boy Scouts to produce an additional increase in participation by asking for a commitment may illustrate the importance of asking for a public (rather than an anonymous) commitment.

In both studies, recycling participation rates remained relatively stable during the observation period, suggesting that the tools of change employed effected long lasting changes in behaviour.

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The script provided to block leaders and Boy Scouts graphically described the amount of waste generated and linked recycling to accepted beliefs (patriotism) and practices (taking out the trash).

Claremont is Recycling

As a U.S. citizen you probably show your support for our country by voting and paying taxes. Beyond this you may feel there is nothing more you can do. However, there are things you can do. One of these is participation in Claremont's recycling program.

Californians alone produce some 40 million tons of refuse a year — enough to fill a two-lane highway, ten feet deep from Oregon to the Mexican border. Currently, the average person in the U.S. produces about 1,300 lbs of solid municipal waste a year. Most of this trash goes into landfills, and it is estimated that if present trends continue, nearly all of L.A. County will be without refuse disposal capacity by 1991.

RECYCLING uses wastes instead of filling up landfills.
RECYCLING extends resource supplies.
RECYCLING IS EASY ... simply put newspapers, aluminum, and glass into separate bags and place at the curb on your regular trash collection day.

Recycling makes a difference and recycling is happening. Over 80% of Claremounters favor the City's recycling program and other cities are calling to ask how Claremont does it. Help us do it, please recycle.

Case Study

The Clean Air Commute

Pollution Probe hosts an annual, month-long Clean Air Campaign to raise awareness about smog, vehicle emissions and related respiratory problems. The main event of this campaign is *The Clean Air Commute*, a one-day event in which employees pledge to carry out cleaner commuting practices. In 1996 a pilot was conducted to build on the one-day event and measure the resulting changes over a period of three months.

Tools used

- Building Motivation Over Time
- Financial Incentives and Disincentives
- Norm Appeals
- Obtaining a Commitment
- Prompts
- Vivid, Personalized Communication
- Work Programs that Influence the Home

Initiated by

- Pollution Probe

Partners

- Major sponsors included 15 corporations, transit commissions and automotive associations

Results

Pilot study participants took public transit four times as often, bicycled five times as often, and walked or ran to work seven times as often, compared with a control group. These changes carried over to their co-workers as well, probably because of the normative appeals built into the program.

Background

The Clean Air Commute was designed to be a fun event. Companies were challenged to compete with one another by collecting points for employee participation in smog-reducing forms of transportation. By 1996, it had expanded to include the cities of Ottawa, Hamilton and Edmonton, with 190 companies and 16,000 employees participating. Despite this success, organizers had not yet measured the impact on people's ongoing transportation habits nor had specific strategies been implemented for promoting such long term changes.

Consequently, a pilot was designed to build on the one-day event and measure the resulting changes over a period of three months.

Delivering the Program

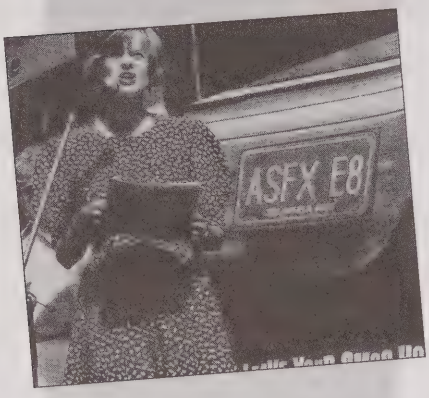
The Clean Air Commute encouraged members of the public to find cleaner means of transportation on one day during the month of June. Such means could include car pooling, taking public transit, walking, biking or rollerblading to work. Points were earned for each of these activities, as well as for working from home and undertaking car efficiency tune-ups.

A planning committee of executives from companies that had participated in the past worked to recruit new participants from local businesses (*Work Programs that Influence the Home*). Participating companies enlisted motivated staff members to act as coordinators, who in turn became responsible for obtaining a commitment from fellow employees to participate (*Obtaining a Commitment*).

The Clean Air Commute was also promoted through a month-long Clean Air Campaign, which raised awareness about the need for cleaner commuting practices. The campaign consisted of billboard advertisements, public service announcements, press conferences and other media coverage.

When a company registered its participation, a package containing colour posters, informational brochures, inserts and coupons was sent to the coordinator for distribution. The posters were displayed in the workplace, and served as a prompt during the campaign week (*Prompts*). T-shirts, caps, and umbrellas with campaign logos also provided prompts and increased the visibility of participation (*Norm Appeals*).

The Clean Air Commute



Pollution Probe's Beth Benson speaking at the press conference launching the Cross Canada Commute. Note the vivid image conveyed by the licence plate poster.

The brochures and inserts provided a rationale for adopting resource efficient commuting practices and contained information on the sources of smog, the problems it caused, and a list of actions individual people could take.

VIA Rail upgrades, free passes, and other valuable coupons were distributed to all *Clean Air Commute* participants. A draw was held for over 100 prizes related to resource-efficient commuting, such as bikes and accessories, transit passes and in-line skates. Companies sometimes supplied their own giveaways for employees as well (*Financial Incentives and Disincentives*).

When employees arrived at work on the day of the event, they marked the activity they undertook on a chart. Pollution Probe collected the charts and tabulated accumulated points. Recognition was later provided through an awards ceremony for companies that earned the greatest number of points and through congratulatory newspaper ads which listed all participating companies (*Norm Appeals*).

In 1996, a pilot program was conducted to test how to build on the one-day commitment and encourage lasting, measurable changes in commuting behaviour. Companies which participated in that year's *Clean Air Commute* event were targeted.

Coordinators at those companies were sent a package about three weeks after *The Clean Air Commute*. It included a poster, letter and questionnaire for distribution. The poster vividly communicated the smog reduction resulting from alternative transportation, depicting the savings in equivalent weights in cars. The companies displayed the poster a few days before handing out the letters and questionnaires, to stimulate interest in the pilot.

The letters were signed by a company executive and distributed along with the questionnaires to employees. The letters commended the employees for what they had already done and informed them that they had a further opportunity to participate through the pilot (*Building Motivation Over Time*).

The questionnaire recognized and built on the employees' past actions and ended with a request for them to agree to participate in the three-month pilot. Respondents indicated their willingness to participate and the type and frequency of smog-reducing activity they would undertake. Commitment was further developed by posting this information in a display at work sites, along with each participant's name and signature. At the end of each month, results were collected by the coordinator and marked on the display (*Prompts* and *Norm Appeals*).

Case Study

The Clean Air Commute

Measuring Achievements

Of the seven companies which agreed to participate in the pilot, three were randomly assigned to serve as a control group.

The other four companies were sent two versions of the questionnaire designed to reflect the two types of participation in *The Clean Air Commute* event. Those employees who had undertaken an activity that they were already accustomed to doing were asked to commit to an additional activity for the three-month period. Those who had undertaken a new activity were asked if they would be willing to extend this behaviour for the same period.

A telephone survey was conducted at the end of the pilot to collect information on clean commuting practices undertaken by members of each of the groups during the three-month period. Respondents were also asked about their intentions for repeating these practices the following summer.

Financing the Program

Clean Air Commute's administrative costs were $186,300 in 1996. This money was provided through corporate donations, government grants, registration fees, and merchandise sales. A further $451,854 of in-kind corporate donations consisted of media advertising and coverage, company newsletter and magazine notices, and prizes.

Approximately three weeks of administrative time was required to undertake the pilot.

Results

The pilot study participants were significantly more likely to have taken public transit (four times as often), bicycled (five times as often), walked or ran to work (seven times as often), compared with their counterparts in the control group. Similar differences were reflected in their intentions for the coming summer. Interestingly, those who worked at the same location as the pilot participants and who had also taken part in *The Clean Air Commute* but had not agreed to participate in the pilot, reported similar overall shifts in clean air commuting to and from work. It would appear that there was a carry over from those participating in the pilot to their co-workers, perhaps through some of the normative appeals built into the pilot.

Only the pilot participants, however, were significantly more likely to have been involved in clean air commuting practices that were not work-related, for example when shopping and doing other errands. The same held true for their future intentions.

The Clean Air Commute

The pilot participants were also significantly more likely to have described themselves as positive and committed to these alternative commuting practices. Their co-workers, while significantly less positive and committed than the pilot participants, were still significantly more positive and committed than those in the control group.

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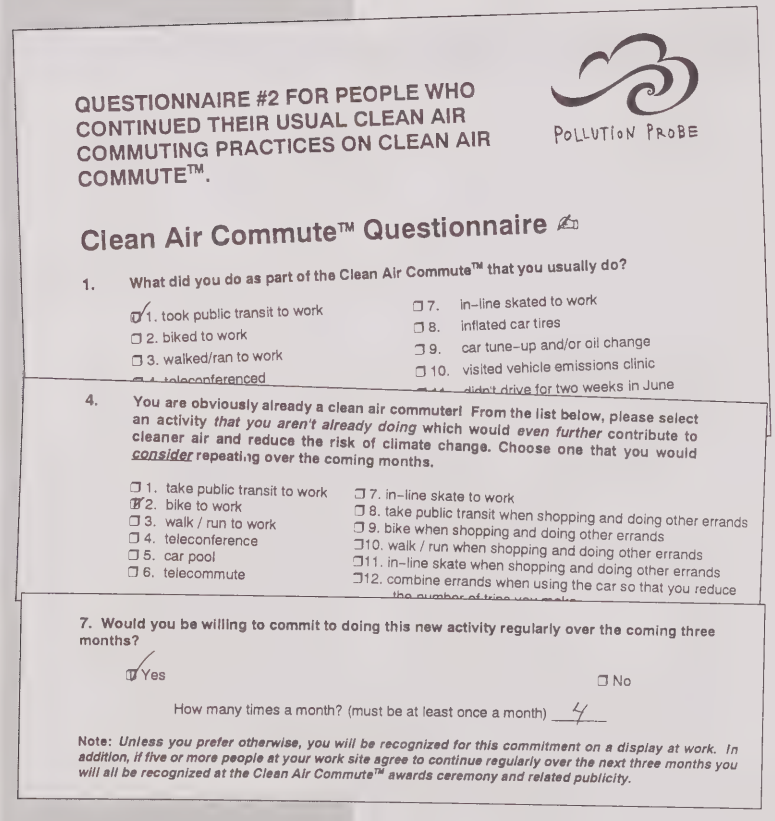


QUESTIONNAIRE #2 FOR PEOPLE WHO CONTINUED THEIR USUAL CLEAN AIR COMMUTING PRACTICES ON CLEAN AIR COMMUTE™.

POLLUTION PROBE

Clean Air Commute™ Questionnaire

1. **What did you do as part of the Clean Air Commute™ that you usually do?**

- ☑ 1. took public transit to work
- ☐ 2. biked to work
- ☐ 3. walked/ran to work
- ☐ 4. teleconferenced
- ☐ 7. in-line skated to work
- ☐ 8. inflated car tires
- ☐ 9. car tune-up and/or oil change
- ☐ 10. visited vehicle emissions clinic
- ☐ 11. didn't drive for two weeks in June

4. **You are obviously already a clean air commuter! From the list below, please select an activity *that you aren't already doing* which would *even further* contribute to cleaner air and reduce the risk of climate change. Choose one that you would *consider* repeating over the coming months.**

- ☐ 1. take public transit to work
- ☑ 2. bike to work
- ☐ 3. walk / run to work
- ☐ 4. teleconference
- ☐ 5. car pool
- ☐ 6. telecommute
- ☐ 7. in-line skate to work
- ☐ 8. take public transit when shopping and doing other errands
- ☐ 9. bike when shopping and doing other errands
- ☐ 10. walk / run when shopping and doing other errands
- ☐ 11. in-line skate when shopping and doing other errands
- ☐ 12. combine errands when using the car so that you reduce the number of trips you make

7. **Would you be willing to commit to doing this new activity regularly over the coming three months?**

☑ Yes ☐ No

How many times a month? (must be at least once a month) 4

Note: ***Unless you prefer otherwise, you will be recognized for this commitment on a display at work. In addition, if five or more people at your work site agree to continue regularly over the next three months you will all be recognized at the Clean Air Commute™ awards ceremony and related publicity.***

The questionnaire to *Clean Air Commuters* built motivation and asked for a commitment.

Case Study — Earth-Works

The *Earth-Works* program was created to reduce the amount of organic waste going to landfill in Port Colborne. An intensive promotion program, featuring home visits and the distribution of free composters, encouraged residents to compost organic waste in their own backyards.

Tools used

- Home Visits
- Neighbourhood Coaches and Block Leaders
- Norm Appeals
- Mass Media
- Financial Incentives and Disincentives
- Overcoming Specific Barriers

Initiated by

- Compost Management, City of Port Colborne

Partners

- Ontario Ministry of Environment and Energy

Results

- Diversion rates of over 50 percent for kitchen waste in the summer, and over 80 percent for yard waste in the fall were achieved.
- Over 60 percent of the city's residents were using composters — and using them effectively.
- The project had a four-year pay-back period and an annual rate of return of about 12 percent over the first ten years.

Background

As of 1996, Port Colborne, Ontario, was a city of 20,000. Approximately one quarter of its residents lived in rural, outlying areas of the municipality. In the spring of 1993, the *Earth-Works* program was introduced to decrease collection and tipping fees.

Setting Objectives

The goals were to achieve a 100 percent reduction in the flow of organic waste to landfill and to half the overall waste going to landfill, using 1989 as a baseline. The overall 50 percent diversion target had been set by the Ontario Ministry of Environment and Energy.

Delivering the Program

A pilot study was conducted in Pickering and Newcastle to determine what level of composting participation could be achieved if free composters were made available. Composters were distributed to approximately 300 households without any large promotional or educational program being used. Those who delivered the composters installed them and gave instructions on their use. Seventeen percent of organic waste was diverted by the participating households.

Home Visits

In the spring and summer of 1993 *Earth-Works* sent two staff teams door to door (*Home Visits*). These distribution crews introduced the *Earth-Works* project and offered residents a free composter. If the resident wished to take the composter, the crew members then assembled and installed it (*Overcoming Specific Barriers*). They explained how to compost and left pamphlets with detailed instructions.

If householders were not home at the time of the visits, the program was explained to them over the telephone and they were told when the distribution crew would next return to their street. If they were not home the second time, a door-hanger was left informing them that they could pick up a free composting unit at the Farmers Market. In addition, advertisements in local newspapers advised householders how to arrange for delivery of their free composter.

Earth-Works

The Compost Doctors

A Compost Hotline provided residents with a direct number to call if they needed assistance. Two "Compost Doctors" were responsible for responding to these calls and for coordinating promotional activities and manned displays at special events. They also conducted follow-up home visits about two weeks after the free composters were distributed, when they answered questions, solved problems, and determined if the composters were functioning properly.

As the Compost Doctors visited each neighbourhood, they asked individuals who were composting effectively if they would be willing to help their neighbours with composting problems (*Neighbourhood Coaches and Block Leaders*). Few people were willing to take on this role, and the attempt to develop a network of neighbourhood coaches was abandoned.

The Compost Doctors also acted as informal links between neighbours. For example, they would point out how neighbours had overcome similar problems with their composters, encouraging discussion among neighbours about composting, and making participation by others more visible (*Norm Appeals*).

School and Camp Programs

The Compost Doctors visited 35 classrooms in 12 schools to promote the program and teach students about composting. They developed an interactive skit, to teach and reinforce which types of waste were compostable and recyclable. In several schools, children drew posters based on the skit, many of which were later displayed to promote the program. Feedback from the community indicated that the school visits had a great impact. Children came home and discussed their experience with their parents and eagerly approached the Compost Doctors when they saw them on the streets of Port Colborne. During the follow-up visits, many residents stated that their children had assumed some responsibility for composting after they had been involved in the skit.

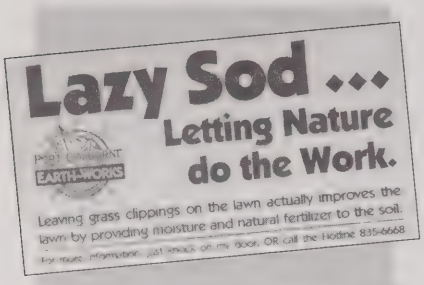
The Compost Doctors also visited a day camp in the summer, where they held a scavenger hunt for the children, who were asked to find different kinds of waste products and then sort them into compostable, recyclable and waste piles.

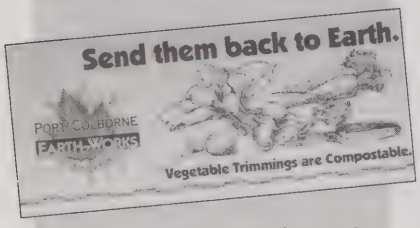
Overcoming Specific Barriers

Residents worried about smell and attracting insects or rodents to their composters were reassured that proper composting avoided these problems and were given appropriate instructions. Residents concerned that composting was too much work were encouraged to "start small," perhaps with garden waste. They were also told that they could compost lawn clippings by leaving them on the lawn, saving themselves the trouble of raking (*Overcoming Specific Barriers*).

Case Study

Earth-Works





Lawn (top) and produce (bottom) signs served as prompts and appealed to community norms in encouraging residents to compost/grass-recycle.

Apartment Composting

The composting program was also implemented among residents of apartment buildings. In September 1993 letters outlining the details of *Earth-Works* were sent to apartment building owners. Follow-up calls were then made to obtain permission to contact the tenants and the superintendent of the buildings. Each property was inspected to see if there was enough green space to install a mid-scale composting unit. If so, the superintendent was contacted and the program explained. Once permission was obtained to install a composting unit, the tenants were invited to an information session on using the composter and the Compost Hotline.

Yard Waste Bans and User Pay

As of October 1994, residential leaf and yard wastes were banned from landfill. Waste containing 5 percent or more of yard waste was not picked up nor accepted at the landfill site. Residents were allowed to drop off this material at the central compost facility or to store the waste for collection during two special collection weeks. A Christmas tree collection program was set up as well. All material composted at the central facility was made available to residents, free of charge, as organic fertilizer for their gardens.

At the same time a "user-pay" system was implemented for residential garbage. Single family residences were permitted to set out four bags each, multi-unit dwellings containing two to five units were allowed three bags per unit, and dwellings with six or more units were allowed two bags per unit. To provide an incentive to stay within these limits, each extra bag would not be picked up without a tag, purchased at $1 a piece (*Financial Incentives and Discentives*).

Other Promotion

The program's public education and communications strategy included the following:

- A unique logo and mascot designed to create community identity and to make program material immediately recognizable.
- A news conference held at the opening ceremony of the composting facility in May 1994.
- Messages presented to the community using newspapers, radio, cable television, and community signage. Humour was an important element of many of the messages.
- Displays set up at market days, malls and public events.
- Welcome-wagon packages for new residents including information about obtaining free composters.

Earth-Works

- Signs and banners placed in supermarkets, reminding shoppers that vegetable waste made great compost. Participating business establishments received door stickers which advertised that they were active composters, reminding patrons about composting and reinforcing composting as a community activity (*Norm Appeals*).

Cards were also distributed to florists to be attached to bouquets and floral arrangements, reminding the recipient that flowers were compostable. Boy Scouts handed out composting brochures, Girl Guides received environmental badges for composting, and announcements were placed in church bulletins. It seems this promotion campaign did not miss anyone!

Measuring Achievements

A residential database was set up to track details of each household's composting activities; whether the householders had accepted a free composter or a rebate; the type of home composter being used; and how and when the composter had been obtained. This information was collected at each point of contact — including home visits, the Compost Hotline and the Farmers Market.

Residential waste composition studies were conducted over six weeks in September 1994, in the summer of 1995, and in the fall of 1995. Garbage was collected for 43 single-family households and taken to a storage facility where it was sorted and counted. The average diversion per household was determined and then extrapolated for Port Colborne as a whole.

Providing Feedback

The residents of Port Colborne were thanked for their composting efforts in a half-page newspaper advertisement. They were also told periodically how much organic waste had been diverted from landfill because of their cooperation.

Case Study

Earth-Works

Financing the Program

The total cost to launch the program in 1993 was $269,500, broken down as follows:

Purchase of composters	$ 174,400
Distribution of composters	$ 32,700
Rebate for composters already in use	$ 4,500
Promotion for start-up	$ 39,000
Administration for start-up	$ 18,900
Total	**$269,500**

The ongoing annual operational cost for 1994, 1995 and 1996 was $23,000.

Promotion	$ 6,000
Administration	$ 10,000
Compost Doctors	$ 7,000
Total	**$ 23,000**

The estimated annual operational costs for future years was lower because of reductions in administration and salary costs.

Fifty-five percent of the funding was provided by the Ontario Ministry of Environment and Energy, and 45 percent by the City of Port Colborne.

Results

An estimated 800 tons of organic waste was diverted each year through backyard composting. The savings to Port Colborne in reduced collection and tipping fees was estimated to be $100 per ton, or $80,000 per year. This represented a return on investment over ten years of approximately 21 percent, with a pay-back period of about four years.

The diversion rates for kitchen and yard waste were:

	Fall 1994 (%)	Summer 1994 (%)	Fall 1995 (%)
Kitchen waste	35	55	42
Yard waste	—	74	86

Case Study

Earth-Works

The results of composter usage evaluations were:

	1993 (%)	1994 (%)	1995 (%)
Not in use	29	21	23
Poor	17	26	14
Average	45	40	51
Excellent	9	13	12

By 1995, 80 percent of all single family households had a backyard composter — 5,700 composters in all.

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Case Study

The Environment Network

This comprehensive program utilized several strategies including home visits, incentives and starter kits to induce households to reduce energy, water consumption, waste to landfill and pollution.

Tools used

- Financial Incentives and Disincentives
- Home Visits
- Mass Media
- Prompts
- Word-of-mouth

Initiated by

- The Environment Network

Partners

- Canada Trust
- Collingwood Public Utilities Commission
- Consumers Gas
- Environment Canada
- Ontario Hydro
- Simcoe County
- Town of Collingwood
- Ontario Ministry of Environment and Energy

Results

Electricity use and water consumption were both reduced by one third. There were also significant reductions in household hazardous wastes and increases in sustainable landscaping practices.

Background

The program was introduced in September 1994 in the Georgian Triangle, an area comprising Collingwood, Collingwood Township, Meaford, Thornbury and Wasaga Beach, with a combined population of approximately 53,000.

The project was initiated in cooperation with the Ontario Ministry of Environment and Energy's Green Communities Initiative in an effort to defer the need to build a new transformer station supplying Collingwood and area by reducing demand for electrical energy. Reducing water consumption would extend further the life of the existing waste water treatment plant, and reducing levels of waste to landfill would delay the need for additional landfill.

Setting Objectives

Objectives were set during a six-month strategic planning process based on information obtained from consultations with the communities and utilities, and on previously set Ontario Ministry of Environment and Energy goals.

The specific objectives were to:

- reduce water consumption in Collingwood 10 percent by the year 2000
- reduce energy consumption 10 percent by 1996 and 25 percent by 2000
- cut waste to landfill by 10 percent by 1996 and 25 percent by 2000
- complete 1,500 Green Home Tune-Ups within one year
- demonstrate that raising demand for environmentally protective products and services would create direct and indirect jobs

Getting Informed

A review of Canadian environmental programs in other communities revealed that cost could be a barrier to enrolling for a home tune-up. In response, the program provided the home tune-up service free of charge.

Interviews were conducted with community and municipal representatives to determine their objectives for energy and water consumption, and waste reduction.

Case Study

The Environment Network

Delivering the Program

The Green Home Tune-Up provided free environmental home assessments conducted by pairs of trained employees. Residents were invited to call to arrange an appointment. During these home visits (*Home Visits*), the assessors provided information to increase the awareness of environmentally responsible behaviour and offered the following services:

- To identify where energy consumption could be reduced, each home was examined for heat loss, insulation levels and proper ventilation. Water heaters were checked and tune-ups were carried out where necessary. Advice was provided on energy efficient lighting.

- To address water conservation, taps and toilets were inspected for leaks. Tap aerators, low-flow shower heads, foam gaskets and toilet tank water-saving devices were installed. Advice was given on maintaining "green" gardens by modifying watering habits and planting native and naturalized species that require less water.

- Residents were told how to reduce household hazardous waste and solid waste to landfill. They were educated on the proper use of their Blue Boxes and encouraged to compost, practise organic gardening, and purchase non-toxic cleaning products.

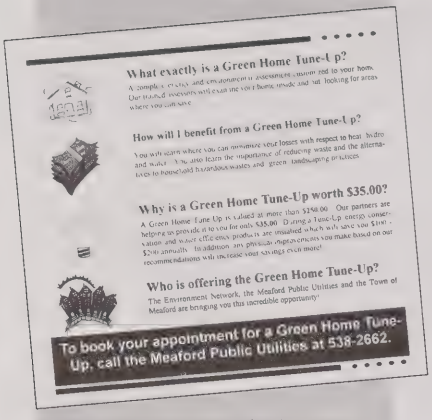
Each resident was provided with recommendations on more extensive improvements that would enhance the energy efficiency of the home, such as additional insulation, caulking, weather-stripping, or window and door replacement. As an incentive to carry out these improvements, participants were offered low interest EnviroLoans from Canada Trust and "Green Loans" from the Toronto Dominion Bank (*Financial Incentives and Disincentives*).

During the program, additional barriers to change were identified: participants felt that proper disposal of hazardous waste required too much time and effort because the disposal site was far away. In response, a local hazardous waste depot was opened in the spring of 1996.

Some people indicated that they were reluctant to use alternative cleaners because they were afraid that they would not work to "kill germs." Education about the effectiveness of the suggested products allayed this fear. In addition, assessors pointed out that if residents were concerned about cleanliness and health factors, they should consider the link between what was spilled down drains and toilets and their drinking water supply.

Case Study

The Environment Network



Green Home Tune-Up promotional brochures used financial incentives.

Starter Kits

In the summer of 1996, Collingwood pilot-tested the use of starter kits designed to reduce the use of household hazardous wastes (HHW) and to promote sustainable landscaping methods. Participants, who had all previously received home visits, were provided with the kits along with a second 10-minute home visit in which the contents and use of the kits were explained.

The HHW kit contained samples of non-toxic cleaning products — a toilet bowl cleaner, dishwashing soap and cream cleanser. It also included a HHW education "sliding window" card and reminder decals provided by the Environmental Hazards Management Institute. The decals — to be placed on hazardous waste products in the home (*Prompts*) — suggested what to do with them ("use up," "recycle" or "save" for proper disposal at the HHW depot). During the visits, several decals were placed on products in the home.

The sustainable landscaping kit included earthworm castings, diatomaceous earth, insecticidal soap, and sunflower and native wildflower seeds, as well as discount coupons for related products. Both kits included information on using the kit's contents and where to purchase more supplies, emphasizing local retailers.

Promoting the Program

The most effective promotional tool for arranging the visits was word-of-mouth (*Word-of-mouth*). Individuals who were satisfied with their own home tune-up passed the word on to friends and neighbours. Inserts in utility bills were also highly effective in securing tune-up appointments. Together, these two promotional methods accounted for 44 percent of the completed visits.

The program was also promoted through the mass media using newspaper editorials and advertisements, magazine advertisements, local cable television video spots, and radio coverage. Information was distributed through newsletters, posters placed in high visibility areas, local banks, displays at special events, community presentations, as well as through the Public Utilities Commission office. Telemarketing and direct marketing in the form of door-to-door visits were carried out.

Providing Feedback

Newspaper articles, newsletters and spots on the local public television and radio stations were used to provide feedback to participants about the progress of the program. Residents of Collingwood were informed about how much energy they had saved, how their participation in home tune-ups translated into savings, and how the community had benefited from growth in the local economy due to increased home renovations.

The Environment Network

Measuring Achievements

The home advisors recorded the number and types of products which were installed in each household on a daily basis. This information was tracked by *The Environment Network*. Using this data, energy and water consumption savings were estimated by the Collingwood Public Utilities Commission. A follow-up telephone survey was conducted with 100 randomly selected participants to determine which of the home visit recommendations they had followed through on, how much money was spent on these changes, and whether they intended to do any more work.

Each participant was also asked to fill out a comment card to evaluate the home tune-up and to assess satisfaction with the program. Fifty-two cards were completed and returned.

One hundred households which had already received a Green Home Tune-Up were randomly selected — 50 received the sustainable landscaping kit, 50 received the household hazardous waste kit. A third group of 50 residents who had participated in the Green Home Tune-Up program were randomly selected as a control group, and received neither kit. In the fall of 1996, a telephone survey was conducted to compare the three groups' use and purchasing intentions regarding pesticides, synthetic chemical fertilizers, and toxic cleaning products.

Financing the Program

The annual budget for the program was $266,475.

The costs were allocated as shown below:

Salaries	$ 163,200
Product subsidies	$ 50,175
Overhead	$ 23,600
Training and manuals	$ 13,500
Advertising	$ 9,000
Project management	$ 5,000
Other	$ 2,000
Total	**$266,475**

The cost of subsidies for the environmental products was $50,175.

Results

Home Visits

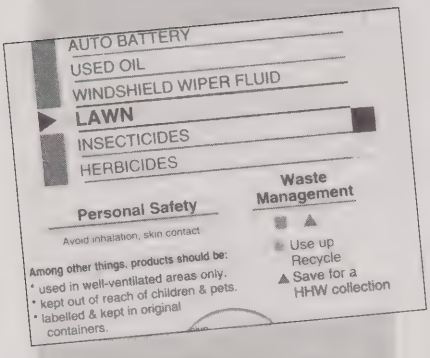
- About 33 percent less water was treated and pumped to participants' homes (83,634 m^3). This resulted in a saving of $21,839.

The Environment Network

- Electrical energy consumption in these homes was reduced by about 30 percent (533,364 kWh) over 1993 levels. This translated into savings of $42,653.

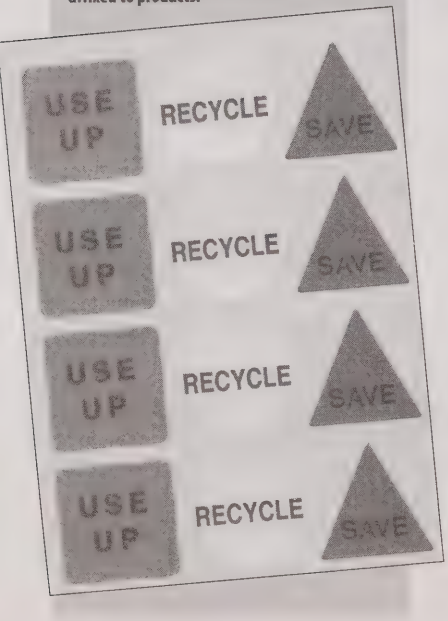
- As of September 1995, $67,600 in EnviroLoans had been obtained for further renovations.

A total of 1,578 home tune-ups had been completed by November 1996. Although figures were not yet available, further savings were achieved through increased recycling and reduced sewage treatment, natural gas consumption, and waste to landfill.



Portion of a "sliding window" waste management card advising householders on care and disposal of hazardous waste.

Self-adhesive decals served as prompts when affixed to products.



Starter Kit Pilot

Residents who received the gardening starter kit were significantly more likely* to have used and to have continued purchasing organic lawn care and pest control alternatives. However, this group had not necessarily stopped using hazardous products, showing no significant differences in their past use or future intentions regarding chemical/hazardous lawn products. They simply used the alternatives as well.

Those who received the HHW starter kit were significantly less likely* to use herbicides and synthetic chemical fertilizers. They reported that they were less likely to use these products in the future as well. In terms of future intentions, they were also significantly less likely to use insecticides, and more likely to use compost and slow-release fertilizers. Information about herbicides and insecticides was contained in the materials provided to this group.

Both groups receiving the starter kits were significantly less likely* to use disposable batteries and chlorine or ammonia-based cleaners over the past summer, and reported that they were less likely to use them in the future as well. They claimed to have disposed of material more frequently at the local HHW depot, although they were apparently just as likely to have saved HHW to take to the depot (all groups reported doing this frequently).

Neither group indicated significant changes in their use of chlorine bleach and drain cleaners,* even though these were covered in the materials that came with the HHW kit.

About one quarter of the participants with the sustainable gardening kit reported using the coupons provided. They reported that the coupons had strongly influenced their decision to try the alternatives.

* Compared to the control group.

Case Study

The Environment Network

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Case Study — Get in the Loop — Buy Recycled

To encourage people to buy more recycled-content products, an annual, month-long *Get in the Loop* campaign reminds shoppers in rural and urban areas of western Washington State to buy recycled through in-store promotional materials, and identifies specific recycled-product choices right on the store shelf. This is supported by a print and radio advertising campaign conducted cooperatively with product manufacturers and local retailers.

Tools used

- Mass Media
- Overcoming Specific Barriers
- Prompts

Initiated by

- King County Commission for Marketing Recyclable Materials

Partners

- Local retailers and manufacturers

Results

Compared to the previous year, sales of recycled content products increased by over 50 percent in participating grocery stores and by a third overall.

Background

The program was developed in 1993, when King County Commission staff in Washington State conceived of a partnership approach with retailers to boost sales of recycled products. Market research indicated five main barriers to the purchase of these products. The market development agency could have little effect on two of these: price and quality. However, the Commission thought it could help overcome the remaining three barriers: low consumer awareness of the availability of recycled content products; consumer cynicism about environmental claims; and unwillingness to put much effort into locating recycled products (*Overcoming Specific Barriers*). By 1996, *Get in the Loop* was the largest and one of the most effective programs in the U.S.A. to increase consumer purchasing of recycled content products.

Delivering the Program

Every element of the campaign strategy was designed to do one of three things: show consumers the importance of buying recycled, tell them where they could buy recycled content products, and show them actual product choices.

According to Dave Herrick, campaign project manager, "the crucial element of the promotion was the 'shelf talker' — a simple marker placed on the edge of a standard retail shelf, below the product." The shelf talker provided a reminder where the purchasing decision was made, lent credibility to the manufacturers' recycled content claims, and demonstrated actual product availability (*Prompts*).

In addition to the shelf talkers, self-stick door decals announced that the store "proudly offer(ed) recycled products." Posters reminded shoppers to look for the *Get in the Loop* symbol, and buttons worn by store employees encouraged dialogue with customers about recycled products. The Commission provided these in-store promotional materials to all participating retailers free of charge.

Says Herrick, "If the link between a direct consumer benefit and a specific product is not clear to consumers, promotional efforts are ineffective. That's why general 'buy recycled' messages seldom have an effect on behaviour: there's no clear connection to actual product choices."

Case Study

Get in the Loop — Buy Recycled

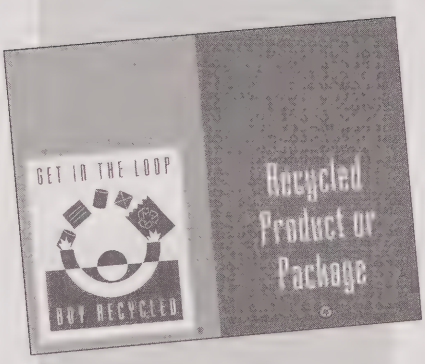
According to the Commission's 1996 Annual Report, "nearly every major retail chain retailer in King County and western Washington State participated. When shoppers went to the grocery store they saw the *Get in the Loop* message. When they went to the drug store, they saw the same message. When they did their shopping, they saw poster after poster in store windows. The *Get in the Loop* campaign created a common identity and shared benefits across a wide spectrum of retailers."

The campaign purchased print and radio advertising that identified participating stores for consumers and emphasized the connection between recycling programs and the purchase of recycled products. During 1994-95, additional ads placed by local retailers that featured the *Get in the Loop* logo exceeded US$600,000, appearing in publications with a combined circulation of 12 million people.

The four-week promotion began on a Wednesday, a major advertising day for grocers. It was scheduled for mid-October to avoid competition with back-to-school and holiday promotions.

Working with Local Retailers

Get in the Loop offered retailers recognition in media advertising and a track record of sales success in exchange for promoting recycled products on store shelves. Retailers were provided with the varied marketing materials free of charge and were given a choice of three levels of participation: "Associate," "Partner," and "Presenting."



These shelf talkers, placed near products on the shelves, identified those items with recycled content and prompted people to buy them.

Retailers at the "Partner" and "Presenting" levels received mention in the program's paid advertising and public relations materials. In return, they agreed to provide sales data and to use the program's logo in advertising and in-store circulars during the promotional period. "Presenting"-level retailers also received recognition as principal sponsors in the campaign's advertising.

Initially, there was resistance from retailers to become partners with government in a marketing campaign. A blue ribbon panel was convened for two meetings during 1993 to provide input to the program planning and lend a private sector "stamp of approval." Panel members became the first participants and enabled the eventual recruitment of 620 retail stores during the first year of the campaign. Smaller retailers were recruited through direct mail, while larger retailers with multiple locations were approached personally.

Organizers sent "shoppers" to monitor a sampling of participating stores early in the campaign, and feedback was provided to the stores on their campaign compliance. Feedback on sales results, copies of news stories, and recognition were also provided over the course of the campaign. Soon after its end, retailers were asked to commit to participate in the coming year's campaign.

Case Study

Get in the Loop — Buy Recycled

A *Get in the Loop* store sign reminded people to look for the shelf talkers.

Working with Manufacturers

Manufacturers viewed *Get in the Loop* as a good way to link their product with a large community event while getting valuable advertising. James River, Carlisle Plastics, and Tom's of Maine contributed a total of US$25,000 to the marketing effort in 1994-95.

Financing the Program

The 1994-95 budget for the program was US$275,000. Of this, $155,000 came from solid waste tipping fees at King County's landfill, $95,000 was contributed by the State of Washington, and $25,000 came from three participating recycled product manufacturers. In addition, an in-kind contribution of $600,000 in advertising was provided by participating retailers.

Results

During the 1994-95 program year, sales of recycled products increased by 58 percent in participating grocery stores and 27 percent overall, compared to the previous year. There were 863 retail locations and one million consumers in western Washington State participating, over one quarter of that state's population. Sales of recycled paper towels, napkins, and toilet tissue, items with which consumer choices were highly flexible at the time of purchase, increased by 74 percent.

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Case Study

Global Action Plan for the Earth (GAP)

As of 1996, over 8,000 households in 15 countries had participated in *GAP's* EcoTeam program which revolves around an easy-to-use workbook and peer support groups. The program focuses on waste reduction, water and energy efficiency, sustainable transportation, and other sustainable consumer habits.

Tools used

- Building Motivation Over Time
- Norm Appeals
- Obtaining a Commitment
- Overcoming Specific Barriers
- Peer Support Groups
- School Programs that Involve the Family
- Word-of-mouth

Initiated by

- U.S.-based non-profit organization founded by David Gershon

Partners

- President's Council of Sustainable Development
- United Nations Environment Program (UNEP)
- Others

Results

Achieved averages of:

- 42 percent less garbage sent to landfill
- 25 percent less water used
- 16 percent less CO_2 produced
- 16 percent less transportation fuel used

Background

Founded in 1989 as a non-profit organization to preserve the earth's environment, *GAP* provided a structured program to help people adopt "green" behaviours and allow them to see that their changes were making a global difference. Two separate programs were available: Journey for the Planet was offered to school children and the Community Lifestyles Program was aimed at adults.

GAP learned to target innovator communities that had expressed interest and a willingness to provide financial support. Within participating communities, information on recycling participation rates was one of the criteria that enabled *GAP* to focus on neighbourhoods where "early adopters" resided. *GAP* estimated that such neighbourhoods represented about 15 percent of the population. It believed that by building enough momentum within these neighbourhoods, the behavioural changes that *GAP* brought about would diffuse throughout the rest of the community's population.

Delivering the Program

GAP identified that people were generally concerned about the environment and wanted to help, but did not know where to start with their conservation efforts. They also tended to believe that they could not effect change, given the enormous scope of environmental problems.

GAP surmounted these barriers by taking participants though a step-by-step process for living more environmentally sustainable lives. Feedback at the individual and group levels showed participants that they were making a difference both locally and globally.

The Community Lifestyles Campaign

The Community Lifestyles Campaign, aimed at households, involved groups of 8 to 12 neighbours (*Peer Support Groups*). Members of these "EcoTeams" met eight times over four months. At each meeting they worked through one chapter of the easy-to-use Household EcoTeam Workbook.

Each chapter in the workbook covered one of the following areas: waste reduction, water, energy and transportation efficiency, being an eco-wise consumer, and empowerment. Each chapter contained 7 to 12 activities that participants could choose to undertake.

Case Study

Global Action Plan for the Earth (GAP)

An example of one of the activities, "Energy x Mass = A Healthier Earth," is reproduced below.

Using an Action Log at the beginning of each chapter, participants identified when they planned to do their chosen activities. At each meeting, group members reviewed the actions taken and shared their plans for the next two weeks (*Obtaining a Commitment*). Members of the group helped each other fine-tune plans, and provided support and inspiration. This helped overcome barriers to action and strengthened the development of group norms (*Overcoming Specific Barriers* and *Norm Appeals*).

Members of the EcoTeam took turns facilitating the meetings with support from a *GAP*-trained volunteer coach who had already been through the program. The coach attended the group's first and last meetings, and provided telephone support in between for the leader of each meeting. This helped to further motivate these leaders (*Building Motivation Over Time*).

GAP provided a "Topic Leader's Guide" for each meeting. Portions of the guide for the transportation topic leader are shown on page 106.

Journey for the Planet Program

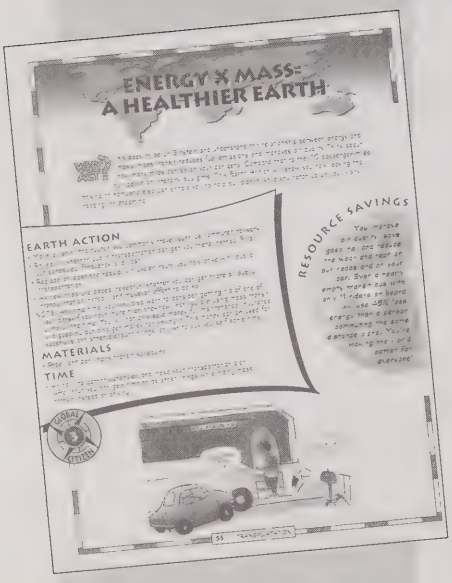
The five-week long Journey for the Planet program, aimed at children 9 to 12 years old, had modules on waste reduction, water and energy efficiency, consumption and empowering others. Often, Journey for the Planet was administered in the classroom with the teacher acting as the coach (*School Programs that Involve the Family*). Says John Barron, a grade 6 teacher from Sturbridge, Massachusetts, "Kids loved the program. They loved the sense of empowerment. They loved that they had choices. They loved that they were on their honour. They loved that they were in the driver's seat and had control. This was the best thing we did all year."

Recruiting

To maximize word-of-mouth promotion (*Word-of-mouth*), an effective member recruitment process had been developed. In the final sections of the Community Lifestyles Campaign, members were encouraged to initiate at least two more EcoTeams and were provided with a standard recruiting script used to invite their neighbours to an informal introductory meeting at their homes.

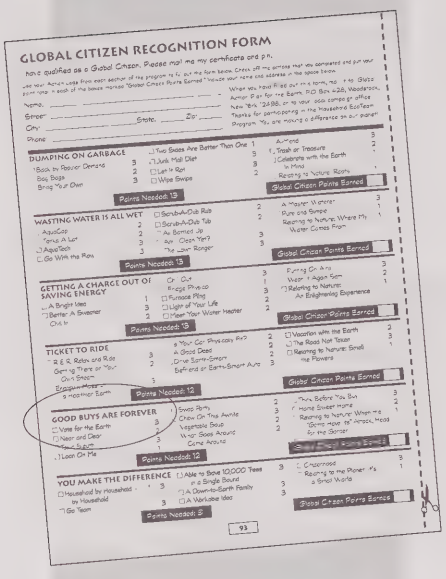
Participants were prepared for this recruiting stage early in their involvement when *GAP* was described as a program for developing sustainable lifestyles and then helping others to do the same. At the first EcoTeam meeting, participants were asked, "Are you up to attempting to create two more teams at the end of the program?"

In the U.S.A. about 40 percent to 50 percent of neighbours approached to attend an introductory event agreed to do so;



Each activity in the *GAP* workbook followed the same format as shown above. This activity was one of ten provided in the chapter on transportation.

Global Action Plan for the Earth (GAP)



GLOBAL CITIZEN RECOGNITION FORM

Points Needed: 13

Points Needed: 13

Points Needed: 13

Points Needed: 12

Points Needed: 12

Points Needed: 5

93

Each action taken was assigned a point value based on effort and resources saved. At the end of the program, participants who had received enough points could mail in the above form for a certificate and pin. The action circled above is described on page 102.

85 percent of individuals who attended the introductory event joined EcoTeams. "Each person you help to start on his or her journey can have similar savings to yours. In this way, you can double your savings for the earth just by helping one extra person live a more sustainable lifestyle." (EcoTeam Workbook, 1995.)

Journey for the Planet also had a recruitment section in the final module. Children were taught how to encourage other children and adults to participate in the *GAP* program.

Working with Municipalities

Municipalities contracted *GAP* to launch and manage the start-up *GAP* program. Working closely with municipal resource managers, *GAP* customized the campaign to fit local conditions and the specific resource conservation needs of the community. Local staff were hired and supervised by *GAP*. A two-day training seminar for the community officially launched the local campaign, providing coaching support for five to ten EcoTeams. Recruitment then began the process of replication throughout the community.

GAP also offered participating municipalities the following:

- help in strategic plan development for community mobilization
- consultation to project potential financial savings
- household and school program materials
- assistance in the development of local promotional materials
- ongoing consultation in managing recruiting and monitoring program quality

Other Partners

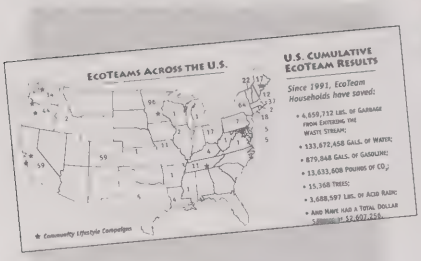
The President's Council on Sustainable Development (PCSD) helped promote *GAP* and recruited communities to participate in the *GAP* program.

The United Nations Environment Program (UNEP) provided a "Global Hero Award Program" to motivate children participating in Journey for the Planet. This program acknowledged children's success stories, and provided certificates and patches for taking a certain number of actions.

UNEP partnered with *GAP* to promote the international campaign called, "The North Puts Its House In Order ... Household by Household." This campaign focused on empowering citizens in industrialized countries to adopt environmentally sustainable lifestyles, with the goal of helping the North work with the South on preservation. "We (the North) cut back the demand, they (the South) preserve the supply. A workable global bargain and the initiation of a Global Action Plan for the Earth." (America Puts Its House in Order ... Household by Household, 1995)

Case Study

Global Action Plan for the Earth (GAP)



A 1996 *GAP* newsletter provided a map showing the number of EcoTeams in the U.S.A. and their accomplishments.

Providing Feedback

GAP's feedback mechanisms enabled each participant to see the positive impacts of his or her actions on the environment. The activities of each EcoTeam were recorded and sent to a central and community database. This information, translated into the amount of realized savings that each member of the EcoTeam had achieved, was fed back to each EcoTeam at the end of its program. Information on the collective accomplishments of all EcoTeams was also tabulated and distributed through the EcoTeam newsletter, *Stewardship*.

Feedback was also provided through a *GAP* Web site. Other feedback mechanisms within each community included newspapers, TV, bulletin boards, computer networks and awards.

Measuring Achievements

The success of the *GAP* Community Lifestyle Campaign was evaluated on several factors:

- average resource savings, based on self-reported data from the participants
- number of neighbour campaigns started
- each EcoTeam recruiting two or more new EcoTeams
- getting sufficient volunteer coaches to lead new teams

Financing the Program

Each household participating in the Community Lifestyles Campaign paid a $35 membership fee which included program materials, access to the volunteer coach who supported the team, and a subscription to the *GAP* newsletter *Stewardship*. The Journey for the Planet cost $12.95 and included a UNEP patch and certificate.

Results

United States

Average U.S. results from participating in the program:

- 42 percent less garbage sent to landfills
- 25 percent less water used
- 16 percent less CO_2 produced
- 16 percent less fuel used for transportation
- an annual average savings to participants of $400 per household

Case Study

Global Action Plan for the Earth (GAP)

The Netherlands

A two-year study funded by The Netherlands' Ministry of the Environment found that 46 out of a possible 93 environmentally relevant behaviours were adopted by 205 EcoTeam participants following completion of the program. Participants not only maintained these practices six to nine months later but in some cases continued to improve on them. Such areas of improvement included increased car-pooling and the installation of water-saving devices in the bathroom. Ex-participants also showed a desire to remain involved in *GAP*, with nearly 33 percent still attending team meetings, volunteering as team coaches or remaining active in some other way. Forty percent of people indicated that they had also changed behaviour at work, and 26 percent had become more active on environmental issues in the community.

More profound results were seen when the *GAP* Community Lifestyles Campaign was introduced to a neighbourhood of 2,500 households in Den Haag, The Netherlands. The resulting behavioural change redirected consumer demand and encouraged shopkeepers to offer products with less packaging. In turn, these shopkeepers placed greater demands for less packaging at the manufacturing level. "This is our first case study of how sustainable consumption practices start to catalyze sustainable production." (America Puts Its House in Order ... Household by Household, 1995)

This case has been adapted from: "America Puts Its House in Order ... Household by Household," by *Global Action Plan*, 1995; "The EcoTeam Program in the Netherlands: A longitudinal study on the effects of the EcoTeam Program on environmental behaviour and its psychological backgrounds," by H.J. Staats & P. Harland, 1995; "EcoTeam: A Program Empowering Americans to Create Earth-Friendly Lifestyles" by David Gershon with Andrea Barrist Stern, 1995; "Household EcoTeam Workbook," by David Gershon and Robert Gilman, 1992; "The Market Potential for the Household EcoTeam Program," by Market Street Research, Inc. 1996; "Stewardship, A Newsletter of Global Action Plan for the Earth," Summer 1996.

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Global Action Plan for the Earth (GAP)

Excerpts from the Transportation Topic Leader Guide (on this page and the next). Note how the topic leader from the previous meeting on energy checked back to see what people had done on that topic. Similarly, the transportation coach checked at the following meeting to see how people made out with their transportation activities.

TRANSPORTATION
TOPIC LEADER GUIDE

Overview

Welcome to your role as topic leader for transportation! This guide will help you:

1. Prepare to lead the transportation meeting, with your coach's help;
2. Lead the transportation meeting;
3. Check in with each of your team-mates after the transportation meeting to offer support;
4. Find out what transportation actions people took and give this information to your coach.

How to prepare for the transportation meeting

Check the box ❑ when you've done each step below:

❑ Schedule your 30-minute coaching session about ten days before the transportation meeting, so you have enough lead time to prepare.
Date and time of coaching session:_____.
Coaches' name and phone number:_____.

❑ Before your session with your coach:

❑ Find out about what is needed to take the transportation actions in the workbook, such as safe bike routes, and fares and routes of public transportation.

Read this topic leader guide and make note of:
— how you plan to lead steps 1, 5, and 9 of the meeting;
— any parts of the agenda that were skipped in previous EcoTeam meetings, so you can discuss with your coach reinstating these into your meeting;
— any questions you may have for your coach.

❑ Have your coaching session to review your plan for the meeting.

❑ Do some of the transportation actions in your own home *before* the EcoTeam meeting. The more you know about the actions from your own personal experience, the more you can offer your team.

How to Lead the Transportation Meeting

1. Inspirational start (5 min.)

❑ Start with a brief poem, personal anecdote, song, prayer, or something that connects the group to the meaning and larger purpose of what you are doing. What you plan to do is: _____.

2. Fill out energy results forms (10 min.)

❑ Ask the energy topic leader to give out the energy result forms for the team to fill out and hand back to him or her.

3. Share experiences with energy actions (30 min.)

Ask the energy topic leader to lead this step of the meeting. The following are the energy topic leader's instructions — provided to you as a back-up.

7. Designate times for support calls (5 min.)

About a week after the meeting, you as topic leader need to call team members to offer them support in completing their action plans. Left on our own, our motivation often wanes — these calls make a big difference in assisting team members to fully carry out their action plans.

Decide the day and time of your support calls, and write them on your chart on the next page.

8. Review what team members need to do before next meeting (5 min.)

1. Take the transportation actions you planned.
2. Complete any incomplete actions or results forms.
3. Create your action plan for consumption (your next topic):
   - read over the actions, discuss them with your household, and decide which to do;
   - make a list of what to do to carry out those actions — whom to call, what to buy, etc.;
   - come with questions or concerns, and ideas for what support you may need;
   - schedule the day and time to do each action.

9. Celebrate the team's accomplishments (5 min.)

Celebrate what the team has achieved. A celebratory end to the meeting you plan to do is: _____.

Case Study — Go Boulder

To promote a shift from single-occupant vehicle use to more sustainable modes of transportation, the City of Boulder uses several synergistic approaches. It offers transit passes to entire workplaces, schools and neighbourhoods, with guaranteed rides home for workplace pass holders needing to stay late at work or in case of an emergency. The city has continually improved its physical system to be more supportive of alternative transportation methods, with high-profile monthly reminders and opportunities to try these alternative methods.

Tools used

- Feedback
- Financial Incentives and Disincentives
- Norm Appeals
- Overcoming Specific Barriers
- Vivid, Personalized Communication

Initiated by

- City of Boulder
- City of Boulder's Alternative Transportation Centre

Partners

- County, regional, state and federal governments
- Local businesses
- Schools and communities

Results

A 6 percent modal shift, from single-occupant vehicles to other modes of transportation, was achieved between 1990 and 1994.

Background

In 1989, Boulder City Council developed the *Go Boulder* program to reduce traffic congestion and air pollution. The most effective way of achieving this was by inducing people to shift from single-occupant vehicle use to alternative transportation such as bicycles, public transit and walking.

Setting Objectives

In 1989 Boulder set a goal of achieving a 15 percent modal shift away from single-occupant vehicles by the year 2010. This goal was set as a result of the Transportation Master Plan developed in 1989, studies, consultant work, and the combined efforts of public process (Integrated Planning Process) and the City Advisory Committee.

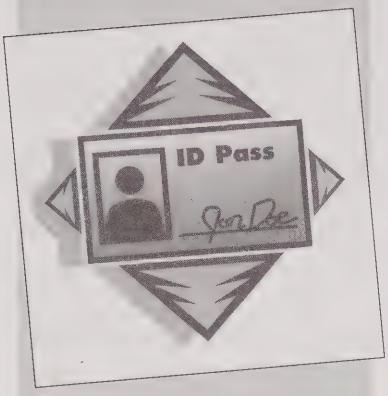
Delivering the Program

Transit Passes

Specific transit pass programs were introduced as incentives to increase bus ridership among various groups (*Financial Incentives and Discentives*). These programs worked much like a group insurance policy — individual members could only obtain reduced rates if passes were purchased for the entire group. The program was tailored to meet the needs of three target groups: businesses, students and community associations/organizations.

For $40 per employee per year, businesses could provide free transit "ECO Passes" to their employees. The passes also gave employees a guaranteed free taxi ride home if they had to work late or in an emergency. This feature was designed to overcome concerns about the availability of transportation in unforeseen situations, a potential barrier to participation that was identified through public meetings (*Overcoming Specific Barriers*). A folder advertising the program to businesses featured testimonials from several companies and the benefits for participating companies (e.g., an inexpensive employee benefit and a solution to parking concerns). As an added incentive to participate, companies were offered a 25 percent discount in the first year. Once on board, companies were unlikely to withdraw the employee benefit in subsequent years and would continue to participate at full price.

Go Boulder



Each company was also encouraged to choose a representative to act as an Employee Transportation Coordinator, who acted as liaison between the *Go Boulder* program and the workplace, distributing all communications and encouraging employees to choose alternative modes of transportation. As of 1995, Employee Transportation Coordinators were working with 22,000 Boulder employees.

A similar program was designed to address the needs of the 25,000 students at the University of Colorado. For a fee of $12, students were provided with unlimited ridership when they presented their student ID cards.

The Neighbourhood Pass and the Family ECO Pass were designed to encourage increased ridership among communities at large. Reduced-rate ID passes were available through homeowners' associations and other neighbourhood organizations. Attractive posters listing community activities and emphasizing alternative modes of transportation were placed in high visibility areas. In addition, households were given a directory of local businesses who delivered their goods, with the aim of reducing the number of trips needed to run errands. Additional discounts were offered to groups during their first year of the program, such as in Glendale, where for a year residents were offered a 50 percent discount on monthly bus passes.

The transit pass programs provided norm appeal as people saw their co-workers, fellow students, or neighbours using the bus more (*Norm Appeals*). While reduced cost was an incentive to try the bus system, research showed that most people who continued to use the buses did so because they found it convenient.

To further enhance convenience, a "HOP" shuttle service was introduced at no additional cost to pass holders. It provided smaller buses running every 10 minutes on short, direct routes between key destinations in the city. The need for the HOP was identified by a community committee and the entire program was designed by its members.

Events

Community- and school-based events, such as the "Non-Polluting Commuter Race" and the "Find Another Way Day," provided the opportunity to experience the availability, practicality, and benefits of non-habitual modes of travel (*Vivid, Personalized Communication*). These high-profile events also helped to increase awareness of the *Go Boulder* program through extensive media coverage.

The "Non-Polluting Commuter Race" pitted cyclists against motorists in a cross-town competition, demonstrating the convenience of riding a bicycle. Three opponent pairs were given simple

Go Boulder

tasks or errands to run en route to the finish line. Both motorists and cyclists were required to park legally and obey all traffic laws. Every year the cyclists won.

Once a month, residents were asked to "Find Another Way" to work, school or play. Breakfast stations were set up on busy routes throughout the community to reward participants. This event was discontinued because it was too staff-intensive and drained resources from other worthwhile projects.

Transportation Infrastructure

To make alternative modes of transportation safer and more convenient, Boulder built over 80 km of off-street and on-street bikeways and also 35 overpasses and underpasses for bicyclists and pedestrians. The transit system was also improved to accommodate increased demand (*Overcoming Specific Barriers*).

Measuring Achievements

Pilot Testing

Pilot testing used for most of the *Go Boulder* programs allowed the planners to evaluate each new program in a real setting at little risk and expense. As a result, they were able to identify strengths and shortcomings, make adjustments, and determine whether to implement the program permanently on a larger scale.

For example, students at the University of Colorado were able to use their student ID cards as bus passes for a student fee of $10 during a one-year pilot. Annual student ridership increased from 300,000 to over one million. At the end of the year, the students voted for an increase from $10 to $12 in the student fee to make this a permanent program at the university.

When the Guaranteed Ride Home program was first tested as a pilot program, there were no limits set on its use, so that any possible abuses to the system would quickly become evident. No abuse was experienced in the test time. The few occasions of abuse since are generally attributable to confusion about the purpose of the service. In the one or two cases where the abuse was intentional, the individuals were denied further service.

Ongoing Evaluation

Evaluation of the *Go Boulder* program was conducted through ongoing citizen surveys such as the Biennial Diary Study, for which 1,000 residents kept a log of their travel for a randomly assigned day in the second week of September. Six years of data on the progress of the program was accumulated by 1995. Similar studies were done with employees, who were asked to record their travel habits for

Go Boulder

one full week. Ongoing focus groups and community meetings were also conducted to uncover changes in attitudes, as well as concerns and opinions.

These studies showed that although there had been a six percent shift away from single-occupant vehicle travel, this had not been enough to counteract a 20 percent increase in average trip distance. In response, the program added an objective of no increase in the average trip distance for the next 20 years. The studies also found that 70 percent of trips were non-work related, which led to an increased focus on promoting the Neighbourhood Passes. In addition, the public meetings and focus groups were instrumental in identifying the need for, and in developing, such programs as the HOP shuttle service and the Guaranteed Ride Home program.

Providing Feedback

Feedback to the community was a keystone to the success of the *Go Boulder* program (*Feedback*). An effective, inexpensive vehicle for providing positive feedback was the local newspaper. An average of two stories ran each month featuring *Go Boulder* successes and community participation. Five video presentations were run repeatedly on the community television channel. Additional feedback was provided through promotional literature, special events, and presentations to community organizations.

Financing the Program

In 1995 the budget for the *Go Boulder* program was $2.9 million per year, as follows:

- $200,000 for advertising
- $75,000 for organizing events
- $900,000 for operating the HOP shuttle service, provided jointly by *Go Boulder* and the Regional Transit District
- $500,000 to study congestion relief and congestion pricing
- $900,000 for other program expenses like introductory discounts, organizing van pools and employee transportation coordinators

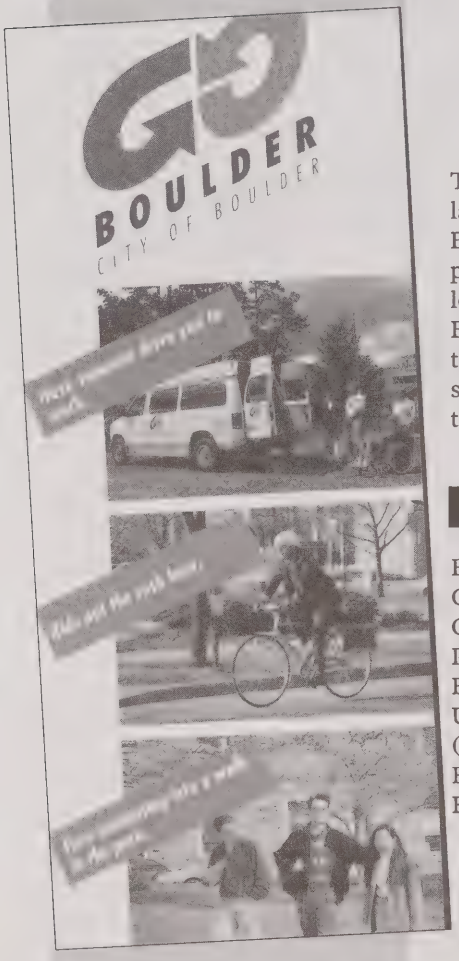
In 1993 *Go Boulder* received a federal grant of $2 million to purchase HOP buses. Federal sources also provided the $500,000 to study congestion relief and congestion pricing.

As part of the city's capital expenditures program, $2 million to $3 million was budgeted for bike and pedestrian paths each year.

Case Study

Go Boulder

The *Go Boulder* brochure featured images of the desired alternative activities.



Results

A 6 percent shift in percentage daily trips from single-occupant vehicles to other modes was achieved between 1990 and 1994. There was also a total decrease of 2.3 percent in multiple-occupancy vehicle, truck and motorcycle traffic. In contrast, nearby regions and the U.S.A. as a whole have shifted towards increasing use of single-occupant vehicles.

- Pedestrian trips increased by 3.5 percent.
- Bicycle trips increased by 2.2 percent.
- Transit trips increased by 1.7 percent.
- Among individual businesses using the ECO Pass, bus ridership increased by 59 percent to 400 percent. (Ridership was measured prior to participation and again six months later.)
- At the University of Colorado, bus ridership went from 300,000 to over one million in the first year.

The return on investment has not been measured in terms of dollars. However, *Go Boulder's* significant contribution to making Boulder a better place to live has resulted in high interest from corporations to set up business in the area. In 1993, when AT&T was looking for a location for its Advanced Technology Laboratory, Boulder was chosen from five alternatives because AT&T believed they could easily attract its employees to Boulder. AT&T referred specifically to Boulder's "clean" environment and well-planned transit system.

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Case Study

The Great Strathcona Exchange

Srathcona County organizes an annual one-day waste exchange. Staffed largely by volunteers, this free event enables people to return serviceable appliances, furniture, or other large household items to useful service by making them available for others to reuse.

Tools used

- Mass Media
- Overcoming Specific Barriers

Initiated by

- County of Strathcona Environmental Operations

Partners

- Local businesses and community organizations

Results

The *Exchange* included over 500 participants and diverted 12 tons of material from the waste stream in 1996.

Background

Strathcona County, Alberta, includes both rural and suburban residential communities and has a population of 60,000.

The goal of the program, which started in 1992, was to make it easy for people to divert from landfill large items that were still useable, and to reduce the need to collect heavy, awkward, expensive items at curbside.

Delivering the Program

The Great Strathcona Exchange was held in late spring to coincide with Environment Week — an event which raised awareness about conservation issues. Designed to make it convenient for people to donate, rather than throw out, unwanted goods, the exchange accepted large, reusable items such as appliances, furniture, building materials, lawn mowers, and bikes. There was no charge for leaving or picking up items.

Local newspaper ads, posters, and notes in utility bills publicized the event. It was also advertised during a twice-annual curbside pick-up of large items, at which time people were asked to save reusable items for the upcoming exchange.

The event was held at an outdoor lot. Vehicles transporting items were directed to designated drop-off areas. Signage was used to direct a "right-hand in," and "right-hand out" traffic pattern, and other signs directed vehicles to appropriate drop-off points for small, medium, and large-sized items. Volunteers helped staff the event and were provided with forklifts and refrigerator dollies to help unload and load items.

Volunteers also helped to orient visitors and hand out tags with which people could claim items. Individuals were responsible for transporting claimed goods by the end of the day from designated collection areas.

Problems were experienced when people claimed items but did not collect them. Consequently options were being considered for future exchanges, including: charging a nominal fee for tags; limiting the number of tags per individual or vehicle; and using coloured tags, coded for expiry times.

Case Study

The Great Strathcona Exchange

Financing the Program

Costs, which were minimal, included producing posters, placing ads in local newspapers and generating messages on water, sewer and garbage utility bills. The site was donated. Organizing and staffing were done largely by volunteers.

Results

Approximately 530 vehicles entered the site to exchange materials, and approximately 12 tons of material were diverted from the waste stream.

Contacts

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Case Study — Guelph 2000

Started in 1993 under Ontario's Green Communities Initiative, *Guelph 2000* provided a home visit service that encouraged City of Guelph residents to undertake a wide variety of conservation-related actions in their homes, including sustainable landscaping practices.

Tools used

- Building Motivation Over Time
- Financial Incentives and Disincentives
- Norm Appeals
- Vivid, Personalized Communication
- Word-of-mouth

Initiated by

- Guelph 2000

Partners

- Guelph Hydro (Shade Tree Program)
- Local businesses (Alternative Garden Tour)

Results

- 65 percent uptake rate for major energy efficiency measures
- 25 percent uptake rate for reducing household toxics
- Shade Tree Program, 1995: 600 shade trees planted and 489 sign-ups for home visits, resulting in $1,365,000 in conservation-related home upgrades or renovations

Background

Guelph 2000 began in 1993 as a pilot under the Green Communities Initiative. The home visit service it helped to develop became the standard used by other Ontario Green Communities (see the *ReCAP* case study).

After two years of operation, *Guelph 2000* had undertaken over 2,100 home visits. It needed to develop new approaches that would appeal to a broader range of interests and attract more participants.

In 1995, two new programs were introduced to appeal to gardeners and promote resource efficient landscaping practices. A Shade Tree Program, made possible by a donation from Guelph Hydro, offered a free tree with every home visit. An annual garden tour was also developed to showcase the private gardens of residents who had already adopted sustainable gardening practices.

Delivering the Program

The Guelph home visit was similar to the other Green Community home visits described in this Workbook (see the *ReCAP* and *The Environment Network* Case Studies).

Arranging the Visits

Of the 1,400 home visits completed in 1995, 35 percent were generated through the Shade Tree Program. It attracted a disproportionately high number of bookings from people in newer homes. These homes were more energy efficient than many others, and therefore presented fewer opportunities for further improvement.

The second most effective promotional tool was word-of-mouth referral (*Word-of-mouth*), which generated 30 percent of the home visits. Telemarketing accounted for 10 percent.

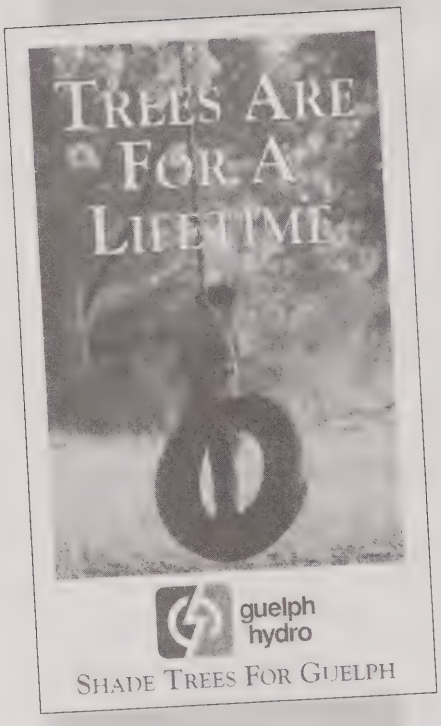
The spring mailing conducted through brochure inserts in Guelph Hydro mailings generated a 1 percent response rate for home visit bookings; fall mailing generated a 0.6 percent response rate.

In an attempt to boost word-of-mouth promotion, *Guelph 2000* organized a raffle for an $800 mountain bike. Home visit coupons were filled out by advisors during a home visit and left with the

Guelph 2000

householder who could pass them out to family and friends. If these people then arranged a home visit, the advisor would collect the coupon, and enter the original householder in the draw.

Organizers found it difficult to track the success of this trial. While people reported that the coupons played a role in prompting their call, the coupons were often misplaced. In all, only about 80 coupons were collected.



Cover of the Shade Trees for Guelph brochure.

Shade Tree Program

As an incentive to participate in *Guelph 2000's* home visit initiative, householders were offered a free tree for their property through the Shade Tree Program (*Financial Incentives and Disincentives*). The trees offered were at least 12 feet high, some as high as 21 feet. They therefore represented a significant offer.

The offer was linked to common motivators such as saving money, and enhancing comfort and lifestyle. These motivators were vividly communicated in promotional statements and images (*Vivid, Personalized Communication*).

The Shade Tree Program was promoted primarily through a brochure insert in Guelph Hydro mailings. In 1995, 60,000 brochures were mailed, half in the spring and half in the fall.

The program built motivation and commitment by involving the householder at every stage. During the home visit, householders could choose from a selection of five species of deciduous trees indigenous to the Guelph area. A colour portfolio illustrated the trees at maturity, with information on height, shape of canopy, and types of seeds or fruit. Advisors went with the householder to view the yard to help select a tree and a planting site. Characteristics of the different trees were linked to the householder's preferences and yard conditions. Householders were responsible for planting the tree or hiring a contractor. The site was marked with a stake painted green with the *Guelph 2000* name on it, to attract the attention of neighbours (*Building Motivation Over Time* and *Norm Appeals*).

Alternative Garden Tours

Guelph 2000 hosted an annual self-guided garden tour that showcased resource-efficient gardens. The tour provided an opportunity to communicate vividly to Guelph residents the benefits of such landscapes (*Vivid, Personalized Communication*) and to show others gardening sustainably (*Norm Appeals*). According to Evan Ferrari, Manager of *Guelph 2000*, "Many tour participants remarked that they had thought about trying alternative gardening techniques, but had previously hesitated because they had never seen it done by others in their community."

Guelph 2000

The event was publicized primarily through media coverage, both before and after the event, and by some paid advertising. Participants paid a $5 registration fee and were provided with a tour map. The gardens demonstrated such features as the use of non-synthetic fertilizers, non-chemical pest control methods, use of indigenous plants, planting windbreaks and shade trees, and growing vegetable and herb gardens.

A printed guide highlighted common motivators such as lower maintenance and improved aesthetics and privacy. In the 1995 guide, one garden was described as being a "tranquil, shade-filled retreat," another as providing "a residential oasis ... without the need for pesticides," while yet another had "bold but easy to care for perennials."

Each garden had a host on hand to answer questions from tour participants (*Vivid, Personalized Communication*). Hosts were either the householders, or volunteer landscape architect students.

Financing the Program

Guelph Hydro was interested in reducing peak electrical demand during the air conditioning season and had an existing tree planting budget to replace trees removed to provide utility access.

In 1995, it committed to donating up to 1,200 trees at an estimated value of $20,000, as well as $50,000 in administrative support. The 600 trees that were actually ordered by residents represented a value of $10,000.

$300 was spent in advertising the Alternative Garden Tour.

Administrative costs for the Shade Tree and Alternative Garden Tour Programs are not known.

Results

Home visits

Over a three-year period, *Guelph 2000* undertook over 3,300 home visits and generated the following results among participating households:

- 25 percent began to practise alternatives to avoid generating household hazardous wastes
- 65 percent performed a major energy saving measure such as replacing windows, adding insulation, or replacing the furnace
- over 50 percent undertook air sealing activities

Case Study

Guelph 2000

The Shade Tree Program generated the following results in 1995:

- 600 trees
- sign-ups for 489 home visits, prompting local conservation-related upgrades or renovations valued at approximately $1.3 million

A follow-up survey showed that tree survival was somewhat higher for contractor plantings. The overall survival rate was 85 percent.

The 1995 Alternative Garden Tour, featuring 16 gardens, achieved these results:

- 200 residents participated in the tour
- 15 home visits were generated, prompting local conservation-related upgrades or renovations valued at about $42,000.

Contact

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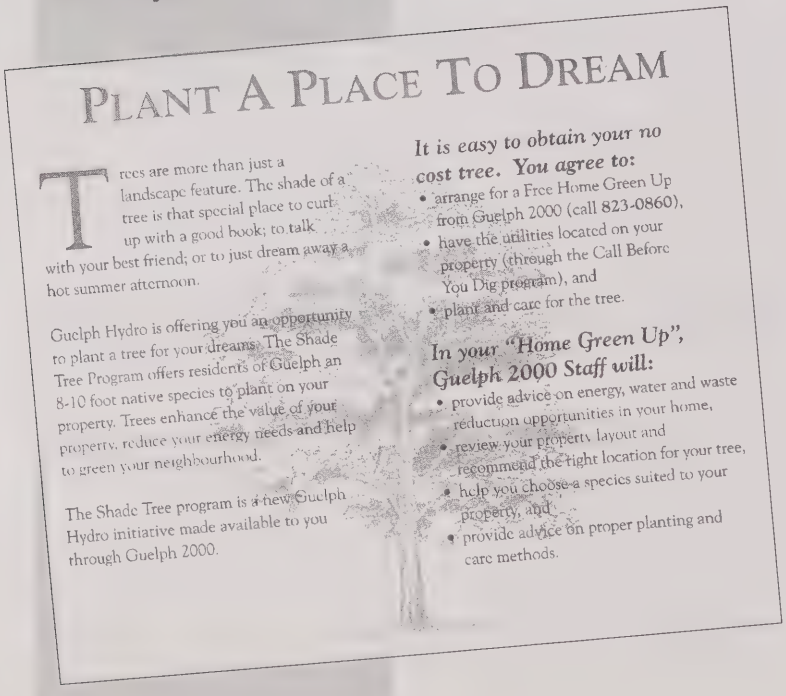
Guelph 2000 **used the nostalgic images of dreams and childhood memories to achieve vivid, personalized communication for their Shade Tree Program.**



PLANT A PLACE TO DREAM

Trees are more than just a landscape feature. The shade of a tree is that special place to curl up with a good book; to talk with your best friend; or to just dream away a hot summer afternoon.

Guelph Hydro is offering you an opportunity to plant a tree for your dreams. The Shade Tree Program offers residents of Guelph an 8-10 foot native species to plant on your property. Trees enhance the value of your property, reduce your energy needs and help to green your neighbourhood.

The Shade Tree program is a new Guelph Hydro initiative made available to you through Guelph 2000.

It is easy to obtain your no cost tree. You agree to:

- arrange for a Free Home Green Up from Guelph 2000 (call 823-0860),
- have the utilities located on your property (through the Call Before You Dig program), and
- plant and care for the tree.

In your "Home Green Up", Guelph 2000 Staff will:

- provide advice on energy, water and waste reduction opportunities in your home,
- review your property layout and recommend the right location for your tree,
- help you choose a species suited to your property, and
- provide advice on proper planting and care methods.

Case Study

In Concert with the Environment

In Concert With The Environment® (*In Concert*) is a customizable educational program developed by EcoGroup. It is sold to electric, natural gas, and water utilities in the U.S. who provide the program to local schools free of charge. *In Concert* teaches about careful use of resources, particularly energy and water use, providing a hands-on, real-life learning experience for students in grades 6-12, and their families.

Tools used

- Building Motivation Over Time
- Obtaining a Commitment
- School Programs that Involve the Family
- Vivid, Personalized Communication

Initiated by

- EcoGroup
- Local utilities

Partners

- Utilities
- Schools

Results

In one case study, over 6,000 action commitments were made by 1,500 students which, if implemented, would result in saving an estimated 6,700 gallons of car fuel, 5,000 kWh of electricity, 8,500,000 gallons of water and 2,000,000 pounds of carbon dioxide.

Background

Between 1991 and 1996, *In Concert* was presented to over half a million students in 14 states. The following case study is taken from a participating utility in the Southern United States. The region served by the utility was both rural and urban, with a population of approximately two million. The utility began offering the program in 1993, following a one-year pilot program involving 2,054 students in 20 schools.

The utility chose to work with students from grades 7-8 because tests had shown better receptivity from students at this level. Other EcoGroup utility customers had chosen grade 9-10 students, anticipating a greater response rate from that level.

Delivering the Program

The program was based on a home survey which required students to question each member of their households about energy use. The resulting data were brought back to the school and entered into a computer. A personalized report was then printed out about home energy use, with suggestions for improvement. The report made use of bar charts showing the Eco Benefits and dollar savings that each household could obtain, as well as those already achieved. The "Eco Benefit" was a catch-all unit of environmental benefits that could be gained from wise utilization of natural resources by student participants. Tree icons were used on the bars to indicate Eco Benefits and dollar signs to indicate dollars saved (*Vivid, Personalized Communication*).

Students then took the report home and presented it to the household. Suggestions for presenting the report were provided in a section of the teachers' guide called, "Presenting your Case." The students asked for a commitment from their households to change household habits in order to use resources more efficiently. Together, the head of each household and the student checked off what they committed to do and then summed up the Eco Benefits earned. Some of the options provided included using the car 5 percent less often and upgrading insulation (*Obtaining a Commitment*).

Case Study

In Concert with the Environment

In 1995, a formal commitment sheet was added to the report, called the Eco Benefits Action Plan (EBAP). Once completed it was signed by both the student and the head of the household. Two copies of the EBAP were included: one for the household to keep as a reminder of its commitment, and the other to return to the teacher. Teachers returned the EBAPs to the utility and the commitments were translated into kilowatt-hours saved, as well as other measures of resource savings. Letters could be generated by the program to the students as well as the heads of households thanking them for participating, reminding them of the specific actions they had agreed to, and soliciting their support in adopting the changes (*Building Motivation Over Time*).

A Student Handbook, as well as tests and activities, were provided in a comprehensive Teacher's Guide. The Student Handbook contained all the elements needed to understand the key environmental concepts of the program. A detailed exercise helped students to make sense of the report they received as a result of their survey. The activities, which illustrated the key concepts of the program, were highly praised and widely used by participating teachers.

During the pilot period and for the first year after the adoption of the program, computers were used. Facilitators provided an introduction to the program and supervised student data entry into the computers provided by the utility. During that time, 10,678 students participated in the program and the survey response rate averaged 80 percent.

The utility wanted to reach more families, but could not fund the support of computers and facilitators to expand the program using the computerized approach. Instead, EcoGroup provided an alternative in the form of scannable answer sheets for the survey. The sheets were first introduced in the spring of 1995 to over 6,000 students. The response rate of 67 percent using this format was lower than that achieved through the computerized approach. However, of those who did respond, a greater proportion completed their surveys fully. (They were required to fill in the sheet under teacher supervision.) The conclusion was that better data were gathered using the scannable answer sheet.

In the fall of 1995 and spring of 1996, participation rose to 13,239 students. An inexpensive incentive for returning the surveys was credited with increasing the average response rate back to 78 percent.

Measuring Achievements

A study of returned EBAPs was used to estimate action taken and kilowatt hours saved.

Case Study

In Concert with the Environment

Results

During one year of the program with 1,500 participating students, and based on self-reported data:

- 1,142 households committed to 13,209 miles of reduced car use
- 1,017 committed to use setback thermostats, saving an estimated 2,000 kWh
- 6,308 commitments in all were made — if implemented, these would save an estimated 6,700 gallons of car fuel, 5,000 kWh of electricity, 8,500,000 gallons of water, and 2,000,000 pounds of carbon dioxide

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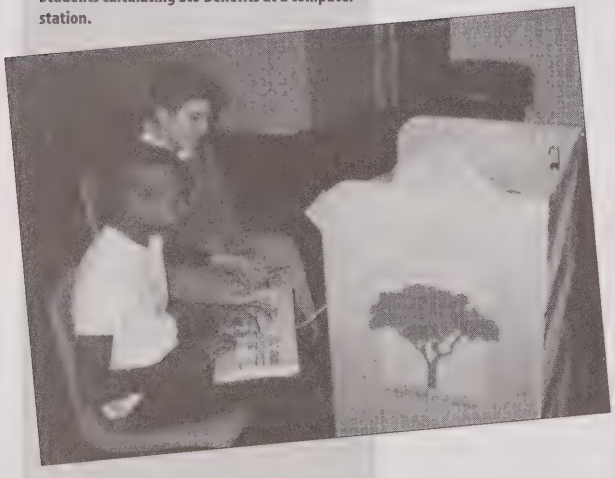
Students calculating Eco Benefits at a computer station.



Case Study — Iowa City

To influence households to reduce natural gas and electricity use, 20-minute home visits were conducted in which conservation strategies were explained, people were asked to participate, and a commitment to participate was requested.

Tools used

- Home Visits
- Obtaining a Commitment

Initiated by

- Researchers Michael S. Pallak, David A. Cook and John J. Sullivan

Results

Households which received a home visit and made a public commitment reduced natural gas and electricity usage by 10 percent to 20 percent.

Background

In 1973, Pallak, Cook and Sullivan initiated a program in *Iowa City* to encourage people to minimize their consumption of natural gas and electricity by requesting that they make a public commitment to do so. From a literature review of previous studies the researchers had determined that individuals who made a public commitment to a specific action were more likely to carry out the action than those who made a private commitment.

Delivering the Program

Participating households received an initial 20-minute home visit during which energy conservation strategies were explained (*Home Visits*). During this visit, residents were asked to participate in a month-long program to determine whether they could reduce their energy consumption through personal efforts. A verbal commitment to participate was requested, and residents were told that the results of the study would be publicized along with the names of participants (*Obtaining a Commitment*).

At the end of the first month, participants were sent a brief letter stating that the project was finished, and had been successful in saving energy and that participants would no longer be publicly identified.

Measuring Achievements

A second group of participants received the standard visits and were asked to make a verbal commitment, but were assured of anonymity. A third (control) group did not receive the in-home visit, nor were they asked to make a commitment.

Meter readings were collected by the local utility company and evaluated by Pallak, Cook and Sullivan. Consumption of electricity and natural gas for participating households was initially tracked for a one-month period. In order to determine whether changes in consumption levels would persist over time or whether they were only a result of "energy conscious" behaviour for a few days after the home visit, the meter readings were tracked for a full 12-month period.

Iowa City

Results

At the end of the first month of the program, the results showed that participants who had made a public commitment had reduced their natural gas and electricity consumption by between 10 percent and 20 percent. There was no significant change in energy consumption for the group which made a private commitment.

Interestingly, participants who made a public commitment continued to consume less electricity and natural gas, even though they had been told that the study had concluded after one month, and that their names would not be publicized.

From: Pallak, M.S., D.A. Cook and J.J. Sullivan (1980). "Commitment and Energy Conservation." In L. Bickman (ed.), *Applied Social Psychology Annual* 235-253, Beverley Hills, CA: Sage.

Case Study

Jasper Energy Efficiency Project (JEEP)

To promote energy conservation, Jasper residents received a one-hour home visit in which conservation strategies and a retrofit incentive program were explained. They were also offered energy efficient products, installation included. The *JEEP* program won five awards, including two from the International Association of Business Communicators.

Tools used

- Financial Incentives and Disincentives
- Home Visits
- Mass Media
- Overcoming Specific Barriers
- Norm Appeals
- School Programs that Involve the Family

Initiated by

- Alberta Power Limited

Partners

- Natural Resources Canada
- Local retailers

Results

The project had a return on investment (ROI) of 95 percent annually over five years and a pay-back period of one year. Overall demand for power dropped by almost 10 percent over four years, compared to a provincial *increase* of 17 percent.

Background

Located in Jasper National Park, the town of Jasper is isolated from the electric grid in Alberta. Demand for power in this town of 4,500 residents nearly doubled from 1981 to 1991, primarily due to growth in the commercial and industrial sectors. The town was serviced by a 14 MW natural gas-fired generating station and a 1.3 MW hydro-electric plant — overall capability of the system was nearing capacity.

The residential component of the *Jasper Energy Efficiency Project* (*JEEP*) ran through 1991 and 1992. By reducing demand for power, Alberta Power hoped to defer the construction of a new transmission line or the expansion of the existing power plant.

Setting Objectives

JEEP's goals were to reduce demand for electrical energy by 500kW and to enlist support from 75 percent of Jasper's residents.

Getting Informed

A door-to-door residential energy survey was conducted between August 7 and September 27, 1991, to determine the most promising options for reducing power consumption and to identify the types of Power Smart programs which could be successfully implemented. Two Alberta Power employees, both local residents, were hired and trained to conduct the research. They delivered the questionnaire to 911 households, answered questions and invited residents to complete and return the survey in a postage-paid envelope to Alberta Power. Nearly 500 were returned. Survey results suggested that energy savings could be achieved by encouraging residents to use compact fluorescent light bulbs and to heat water with natural gas.

In addition to the survey, a literature review was conducted. The research showed that sales of block heater power saver cords in the Yukon had been impressive, but that most of the cords had either not been installed or had been installed incorrectly — the result of customers having to perform the installation themselves.

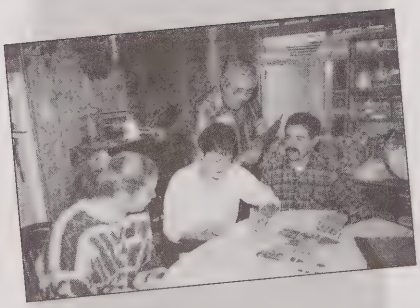
Jasper Energy Efficiency Project (JEEP)

Delivering the Program

To guide the project and to provide local input, Alberta Power established a Public Information Committee, made up of representatives from the general public and various groups such as the School District, environmental groups, the Chamber of Commerce, and the Hospital Board. A *JEEP* office was set up in Alberta Power's existing district office to centralize all customer-related electrical enquiries in one location and to minimize administrative costs.

Public awareness was created as follows:

- The project was launched at a public event covered by provincial media and attended by 300 members of the public. Canada's first Energy Innovators Award was presented to the *JEEP* program at this event by Natural Resources Canada.
- Promotional items such as pens, hats, T-shirts and key chains bearing the Power Smart logo, were distributed to residents.
- Bill stuffers, brochures and an edition of the Alberta Power Smart Report were distributed.
- Local newspapers provided ongoing coverage of the program in editorial articles. This was a result of Alberta Power's efforts to develop a strong relationship with the media. The newspapers also carried stories about the project and highlighted residents who participated in it (*Norm Appeals*).
- *JEEP's* newspaper advertising campaign consisted of two series of advertisements, one featuring lifestyle ads, and the other describing the program and providing instructions on how to book an appointment with a *JEEP* Team.
- Local people were hired to form the two trained teams of employees (*JEEP* Teams). Alberta Power felt that it was important to ensure that the employees were familiar with Jasper's residents, as this provided insight into the community and created public credibility. The high level of trust already established between Alberta Power and its customers dispelled any barriers arising from residents' scepticism about the program.



A *JEEP* home visit team reviewing utility bills with a householder.

The *JEEP* Teams went door-to-door explaining, selling and installing the energy saving products. Home visits were used because this was the most effective way of explaining the complex details of the program and securing participation (*Home Visits*).

JEEP provided financial incentives to induce customers to install energy efficient products in their homes (*Financial Incentives and Disincentives*). A maximum of 80 percent of the retrofit cost, and up to $450 per kW saved, was covered by the program. The following products were offered:

Jasper Energy Efficiency Project (JEEP)

1. Coupons for block heater power saver cords were sold for $7.50 by the *JEEP* Teams. To ensure that the cords were installed properly, the coupons had to be redeemed at Jasper's service stations, where installation was available. Alberta Power paid the service stations $5 for each cord they installed (*Overcoming Specific Barriers*).

2. A selection of compact fluorescent light bulbs, ranging from 11 to 18 watts, were sold to residents for $3 or $5 each. A limit of eight bulbs per home and five per apartment was set after the first two days of the program, when it became apparent that people were buying large quantities as gifts to people outside of Jasper.

3. Up to two indoor and two outdoor lighting timers could be purchased per residence. The indoor timer was sold for $4, and the outdoor one for $9. The *JEEP* Teams instructed the residents on the operation of the timers, particularly their application to Christmas lighting.

A $400 incentive was offered to residents to convert electric water heaters to natural gas. Initially residents were required to retain their own contractor for the installation. On average, participants were paying approximately $800 with the rebate. This proved to be a barrier, and as a result only three conversions were completed. Alberta Power later hired a contractor to retrofit the homes (*Overcoming Specific Barriers*) — an arrangement that was both more convenient and less costly ($300 compared to $800) for residents. This change resulted in 26 additional water heater conversions.

Working with local retailers

Light bulbs and timers were purchased through a local Home Hardware Limited supplier, Saito Sports & Hardware Limited. To integrate the store into the program, an employee of Saito Sports & Hardware attended a one-week training session, conducted by Alberta Power, to learn about the products.

By centralizing the purchasing process through one retailer, it was hoped that the program would be assured of availability of stock. Initially, there were some delays in obtaining the energy efficient products, as the supplier's established distribution system was not designed to provide such large quantities to a single store. In response to this problem, Saito Sports & Hardware bypassed the regular distribution channels and placed orders directly with the manufacturer. Other benefits of working with a local retailer were that this provided local warranty on products, and ensured that the same products were available in Jasper once the program had ended.

Jasper Energy Efficiency Project (JEEP)

Schools were involved in the *JEEP* program as well. A grade 11 student representative and a school superintendent sat on the Public Information Committee. The schools were retrofitted to reduce energy consumption. *JEEP* Teams visited the schools to educate students on energy consumption and to talk about the program. As well as raising energy awareness among the upcoming generation of citizens, the school visits resulted in children encouraging parents to call for *JEEP* Team appointments.

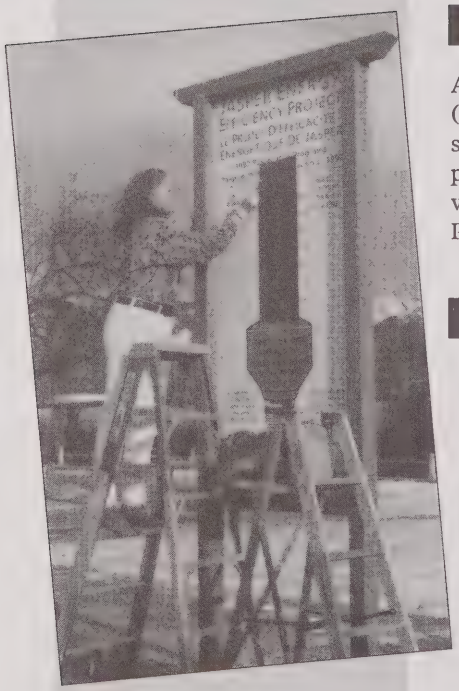
Measuring Achievements

JEEP Teams filled out home visit reports, noting for each residence the number of products installed, wattages, and whether the products were used during peak hours. Energy savings were calculated using this data and energy output levels at the Alberta Power Plant.

An independent research company was hired to conduct a follow-up telephone survey in June 1993. More than 350 residents who had been visited by the *JEEP* Teams were polled to obtain their opinions about the program. In addition, a mail-in survey was conducted with 76 residents who did not participate to determine why they chose not to.

Providing Feedback

A large progress sign was placed in the centre of the town (*Feedback*). It tracked the total number of kilowatts of power being saved, showing the community how its participation in the *JEEP* program was reducing energy consumption. Feedback was also provided through newspaper articles, advertisements and the Alberta Power Smart Report.



A progress sign tracked community savings.

Financing the Program

- The budget for the residential portion of the *JEEP* Program was $345,000 — $113,000 of this was used for the incentives program, and $232,000 went toward promotion, advertising, planning and administrative costs.
- Natural Resources Canada provided a grant of $100,000, which was used in the planning stage of the project.
- Residents spent approximately $70,000 on products and retrofitting water heaters.

Case Study

Jasper Energy Efficiency Project (JEEP)

Results

- Overall demand for power in Jasper between 1991 and 1994 was reduced by 9.6 percent, while demand elsewhere in Alberta increased by 17.5 percent.
- Reduction in residential demand for electrical energy was 490 kW, very close to the 500 kW objective.
- Alberta Power's cost for the residential portion of the *JEEP* program for the period between 1991 and 1992 was approximately $705 per kW saved, compared to an anticipated cost of new power generation equipment of $1,400 per kW.
- The project pay-back period was about one year, with a return on investment over a five-year period of about 95 percent per year (assuming constant savings and demand).
- The reduced demand resulted in the power plant's reducing CO_2 emissions by 730 tons and nitrogen oxide emissions by 1.5 tons.
- 38 percent of those surveyed indicated that they had undertaken additional energy efficiency measures as a result of the awareness created by *JEEP*.
- 34 percent of those who did not participate in the *JEEP* program said they did not do so because they were unaware of *JEEP* or did not know how to arrange for a home visit.
- A participation rate of 75 percent of residences was achieved (900 residences out of 1,200).
- 96 percent of the participants who responded to the follow-up telephone survey were "very satisfied" with the *JEEP* Teams' performance.
- Only 24 percent of respondents did not install their power cords, compared to the Yukon where 60 percent of the cords purchased were either not installed or installed incorrectly.

By 1995, the demand for electrical energy had returned to its 1991 level of 11.9 MW, still well below the originally projected level of 13.3 MW. Most of the increase was attributable to large growth in the commercial and industrial sectors in Jasper.

Case Study

Jasper Energy Efficiency Project (JEEP)

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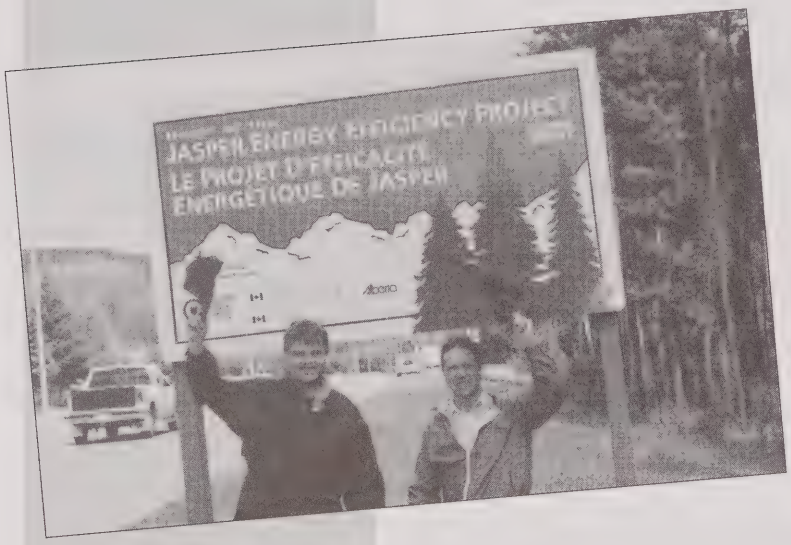

A road sign helped maintain awareness about the *JEEP* program.

Case Study — Norway Public School Litterless Lunch

Students eating lunch at Norway Public School were exposed to an ongoing *Litterless Lunch* program — one that involved the participation of parents and made use of student monitors. In addition, there was an emphasis on recycling and composting throughout the school.

Tools used

- Norm Appeals
- Overcoming Specific Barriers
- Prompts
- School Programs that Involve the Family

Initiated by

- Norway Public School

Results

Self-reported estimates indicated major reductions in packaging, and corresponding increases in the amount of materials recycled and composted.

Background

To complement 3Rs educational units being taught at Toronto's Norway Public School, opportunities were created for students to practice what they learned. The *Litterless Lunch* program was one of a number of school-wide waste reduction programs created in 1993 which involved the participation of school staff and students from kindergarten through to grade 6. The student lunch area had been identified as a major source of waste.

Delivering the Program

Litterless Lunch Program

A letter was sent to parents early in 1993, explaining the *Litterless Lunch* program's goals, requesting parents' participation, and provided advice on nutrition as well as ways to reduce disposable packaging (*School Programs that Involve the Family*).

Subsidized reusable lunch bags containing reusable food containers were offered for sale at parent-teacher nights (*Overcoming Specific Barriers*).

To encourage ongoing student involvement, a number of daily reminders were provided. Posters and art work in the lunch area communicated 3Rs and composting themes. Volunteer lunch room monitors (grades 4-6) reminded students to separate compostable scraps and recyclables, and to place them in collection bins (*Norm Appeals* and *Prompts*). The monitors were also responsible for taking the collected food to an outdoor composter. Teachers provided prizes such as bookmarks and stickers with environmental themes to students who brought a litterless lunch.

Other School-wide Waste Reduction Initiatives

Each classroom contained recycling bins for the collection of both white and mixed paper. Every week, an announcement was made on the school PA system for student volunteers to carry the classroom bins to a centrally located collection area. Students also read environmental tips over the PA system.

Both the caretakers and the students from a grade 6 class were responsible for the ongoing maintenance of the outdoor composter. Students also collected food scraps from the kindergarten, where snacks were served, and the staff room.

Case Study

Norway Public School Litterless Lunch

Measuring Achievements

In 1996, a questionnaire was sent home to parents of the 51 children in grades 2-3 and 4-5. Parents were asked to estimate the impact of the program on their households by choosing from ranges provided. For example, one question asked: "As a result of the school's Litterless Lunch, recycling and composting programs, we have reduced the amount of packaging that we use in our child's school lunch by: 0-20 percent, 21-40 percent, 41-60 percent, 61-80 percent, 81-100 percent. Forty-five completed questionnaires were returned (an 88 percent response rate).

Results

On average, parents reported that the *Litterless Lunch* program had reduced the amount of packaging in their children's school lunches by about 60 percent. A similar reduction (about 50 percent) was reported in the use of "wraps and foils" at home, and an overall reduction of about 40 percent in the packaging of foods and products they purchased. The parents also reported an average increase of about 60 percent in the amount of material put into the Blue Box for recycling, and about 40 percent in the amount of materials composted. Bearing in mind that the small numbers, self-reported estimations and lack of a control group combine to reduce confidence in the accuracy of the results, the data point to the overall effectiveness of the approach taken.

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Case Study — Pacific Gas and Electric

Pacific Gas and Electric was using home audits to encourage residents to improve the energy efficiency of their customers' homes. In order to improve the effectiveness of home visits, the utility trained some of its auditors to obtain commitment from the resident, to frame recommendations in terms of "loss" rather than "gain," and to convey recommendations in a personalized, vivid manner.

Tools used

- Building Motivation Over Time
- Home Visits
- Norm Appeals
- Obtaining a Commitment
- Vivid, Personalized Communication

Initiated by

- Pacific Gas and Electric Company

Results

After being served by trained auditors, customers were three to four times more likely to retrofit their homes and a third more likely to apply for retrofit financing.

Background

In 1978, with the Arab oil embargo still fresh in the minds of most North Americans, the United States Residential Conservation Service (RCS) Program was established to promote residential energy efficiency. The RCS Home Audit Program encouraged residents to invest in their homes in order to conserve energy. *Pacific Gas and Electric* participated in this program by hiring auditors to conduct energy audits of homes.

The success of the RCS program was marginal, with less than 6 percent of American residents requested home audits, and fewer acted upon the recommendations of the auditors. This lack of success was surprising, as improvement of home energy efficiency could have saved residents money. Clearly, new methods of communicating recommendations to residents needed to be investigated.

Delivering the Program

In a typical home audit, the auditor spent up to an hour with the resident inspecting the home and recommending ways of improving its energy efficiency by such means as improving attic insulation, caulking windows, and installing weather-stripping around the doors. Two retrofit finance programs, a zero-interest loan (ZIPLOAN) and a cash rebate program (CASHBACK), were made available to residents to encourage them to act upon the recommendations of the auditor.

Auditor Training

During the auditor training, four basic communication principles were presented, discussed and role-played:

1. Vivid information

Auditors were taught to vividly illustrate heat loss, rather than rely on dry statistical information (*Vivid, Personalized Communication*). For example, auditors were encouraged to use expressions like the following: "If you were to add up all the cracks around and under the doors of your home, you'd have the equivalent of a hole the size of a football in your living room wall. Think for a moment about all the heat that would escape from a hole that size. That's precisely why I'm recommending that you install weather-stripping. And your attic totally lacks insulation. We call that a 'naked' attic. It's as if

Pacific Gas and Electric

your home is facing winter not just without an overcoat, but without any clothing at all."

In addition, they were encouraged to use vivid portraits of community members who had successfully taken conservation measures to an extreme, and saved more energy and money than average. These "superconservers," it was thought, would have a disproportionately large motivating impact on the residents (*Norm Appeals*).

2. Personalized information

Auditors were discouraged from simply leaving computerized summaries of recommendations for the residents. Instead, they were encouraged to make the recommendations more personally relevant by using the utility bills of the resident to illustrate current losses or potential gains (*Vivid, Personalized Communication*).

3. Building motivation

Auditors were taught that enlisting the resident to participate in the audit increased the motivation of the resident and therefore increased the probability that the resident would take retrofit action. Auditors were asked to encourage the resident to measure the cracks under doors, help with meter readings, climb up the ladder to see the level of attic insulation, and so on. As well, auditors were encouraged to seek verbal commitment from residents confirming that they would make the recommended changes. For example, the householder might be asked: "When do you think you'll have the weather-stripping completed?... I'll give you a call around then, just to see how it's coming along, and to see if you're having any problems" (*Obtaining a Commitment*).

4. Framing

The auditors were also instructed to "frame" recommendations offered during the audit in terms of potential money lost through inaction, rather than money saved through action.

Measuring Achievements

Eighteen auditors employed by *Pacific Gas and Electric Company* participated in the program. Nine were randomly selected to be trained and the remaining nine served as a control group. The training was held during two five-hour workshops four months apart.

The ZIPLOAN and CASHBACK finance programs were only available to residents after they had completed recommended retrofits. The number of applications for the finance programs were, therefore, a good indicator of the changes in behaviour following the audits, and the overall success of the training.

Case Study

Pacific Gas and Electric

Results

Customers served by trained auditors were three to four times more likely to retrofit their homes and 36 percent more likely to apply for retrofit financing. Surprisingly, there was no difference in gas and electricity consumption between experimental and control conditions. This may be attributed to the possibility that related retrofit activity had not yet taken place.

Adapted from: Gonzales, M., E. Aronson and M. Costanzo (1988). "Using Social Cognition and Persuasion to Promote Energy Conservation: A Quasi-Experiment." *Journal of Applied Social Psychology*, 18, 12, 1049-1066.

Case Study

Peterborough Green-Up

Peterborough Green-Up is a non-profit community environmental organization that helps people become more resource efficient through a home visit service. A demonstration Ecology Park is also run, in conjunction with related workshops and clinics.

Tools used

- Home Visits
- Financial Incentives and Disincentives
- Mass Media
- Overcoming Specific Barriers
- Vivid, Personalized Communication

Initiated by

- Peterborough Community

Partners

- Local, provincial and federal governments
- Local utilities

Results

Average annual natural gas consumption was reduced by 7 percent, and an average of $1,000 was spent on green home improvements by households visited.

Background

The idea for *Peterborough Green-Up* developed out of a community planning forum and task force study about how one small Ontario city could balance the needs of the environment with pushes for development. Launched in 1991 with limited resources, the program expanded in 1993 with funding under the Ontario's Green Communities Initiative and support from a coalition of local partners.

Delivering the Program

The Home Visit

As of 1996, *Peterborough Green-Up* had conducted over 4,500 Green Home Visits. These visits were similar to the ones described in this Workbook for other Ontario Green Community organizations. In addition, *Peterborough Green-Up* undertook a blower door test in people's homes, which reduced the pressure inside a house, forcing a rush of air in through gaps in the home's structure (*Vivid, Personalized Communication*). While the test was being conducted, householders were directed to feel the air rushing in at various trouble spots. A computer print-out detailed information about air leakage, including the estimated combined size of all gaps in the home.

Peterborough Green-Up also piloted a starter kit for promoting the purchase of sustainable landscaping plants. The kits, distributed in the spring of 1996, included a description of the methods and plants used to create bird and butterfly gardens, low water gardens, food and herb gardens, and gardens of native shade trees. The kit also contained a 15 percent discount coupon as an incentive for buying plant materials from a participating nursery (*Financial Incentives and Disincentives*). *Peterborough Green-Up* advisors helped householders decide which type of garden was best suited for them.

Ecology Park

By 1996, Ecology Park was a five-acre garden and education centre situated on land owned by the City of Peterborough. It showcased landscaping methods that contribute to resource conservation, waste reduction, biodiversity, wildlife habitat, local food production, and reduced use of chemically manufactured pesticides and fertilizers. Visitors could view and learn from the numerous operating projects.

Case Study

Peterborough Green-Up

Ecology Park offered plant sales, weekly clinics and workshops to help individuals to take that next step toward changing their gardening habits (*Building Motivation Over Time*).

The park was staffed five to six days a week, May through October, and was open to the public. Some of the staff were volunteers, who received workshop training in return for their work. Family oriented picnics and concerts were held at the park — both as promotion and to make good use of the site.

Bi-weekly Newspaper Column

Peterborough Green-Up staff wrote a bi-weekly column for the local daily newspaper, the *Peterborough Examiner*. The column provided seasonal information and feedback, helped remind people about the actions being promoted, and raised awareness about the program.

Measuring Achievements

Fifty randomly-selected households receiving the home visit were also given a sustainable landscaping starter kit. Another 50 households did not receive the kits and served as controls. A telephone survey of both the participating and control groups was conducted at summer's end in 1996. Respondents were asked what kind of plants they had purchased that summer, and what their plans were for the next spring.

Financing the Program

The annual budget for Ecology Park in 1996 was $52,050, as follows:

Staff	$43,000
Plants	$ 4,000
Supplies	$ 1,000
Marketing	$ 3,500
Miscellaneous expenses	$ 550
Total	**$52,050**

Results

The program led to a 7.2 percent reduction in average annual natural gas consumption. An average of $1,000 were spent on green home improvements by households visited.

Participants in the starter kit pilot were not significantly more likely to purchase sustainable landscaping plants.* However, the discount coupons had a mild but significant impact on where people bought their plants.

* Relative to the control group.

Case Study

Peterborough Green-Up

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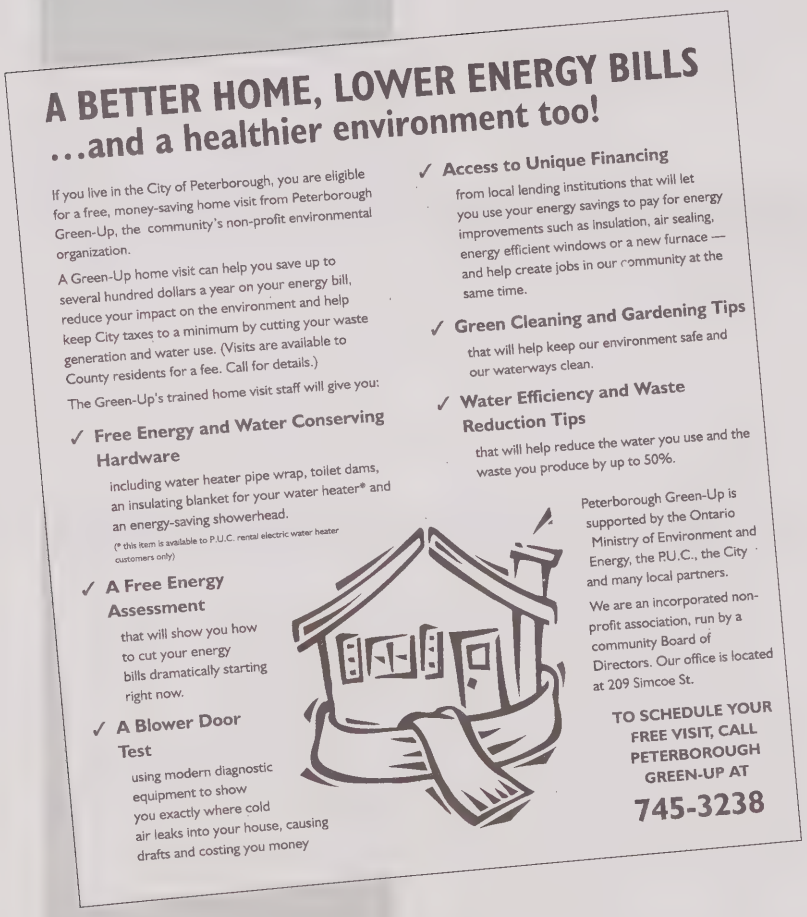

A BETTER HOME, LOWER ENERGY BILLS
...and a healthier environment too!

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A Green-Up home visit can help you save up to several hundred dollars a year on your energy bill, reduce your impact on the environment and help keep City taxes to a minimum by cutting your waste generation and water use. (Visits are available to County residents for a fee. Call for details.)

The Green-Up's trained home visit staff will give you:

✓ **Free Energy and Water Conserving Hardware**
including water heater pipe wrap, toilet dams, an insulating blanket for your water heater* and an energy-saving showerhead.
(* this item is available to P.U.C. rental electric water heater customers only)

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✓ **A Blower Door Test**
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✓ **Green Cleaning and Gardening Tips**
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✓ **Water Efficiency and Waste Reduction Tips**
that will help reduce the water you use and the waste you produce by up to 50%.

Peterborough Green-Up is supported by the Ontario Ministry of Environment and Energy, the P.U.C., the City and many local partners.

We are an incorporated non-profit association, run by a community Board of Directors. Our office is located at 209 Simcoe St.

TO SCHEDULE YOUR FREE VISIT, CALL PETERBOROUGH GREEN-UP AT
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Case Study — Quinte Regional Recycling

To encourage people to reduce the amount of curbside waste going to landfills, a range of waste diversion programs were introduced in the Centre and South Hastings Region of Ontario, including backyard composting, expanded Blue Box recycling, reducing and properly disposing of household hazardous waste, and a user-pay system.

Tools used

- Financial Incentives and Disincentives
- Mass Media
- Norm Appeals
- Overcoming Specific Barriers
- Prompts

Initiated by

- Quinte Regional Recycling

Partners

- Centre and South Hastings Recycling Board
- Ontario Ministry of Environment and Energy
- Industry funders

Results

The program's successes include:

- 50 percent return on investment for the composting program
- tonnage diverted from waste grew by nearly half between 1989 and 1994, while recycling program costs dropped by over half between 1991 and 1995
- waste diversion levels averaged 66 percent across all municipalities by 1996

Background

Quinte Regional Recycling was a program of the Centre and South Hastings Recycling Board, an association formed from 15 municipalities in southeastern Ontario with a combined population base of 95,000. In 1991, with the support of the Ontario Ministry of Environment and Energy, the Board launched Blue Box 2000. This program was a one-year demonstration to show how a municipal waste diversion program could be expanded to its maximum potential. A combination of extensive backyard composting, user payment, and an expanded Blue Box recycling program were used.

Setting Objectives

The goals set by *Quinte* and its partners, based on data obtained from local waste stream studies, were:

- 71 percent diversion from the residential waste stream by the year 2000
- cost effectiveness
- 80 percent of single family householders composting at home

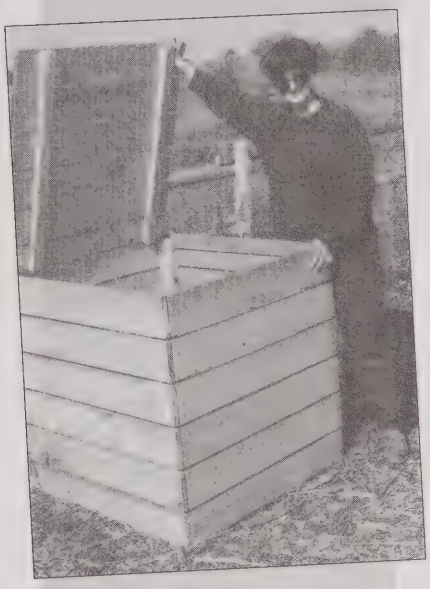
Delivering the Program

Blue Box 2000 involved three main areas of focus: increasing backyard composting, expanding the Blue Box recycling program and introducing a user-pay system. The program was introduced and tracked independently in each of the six participating communities, with a local service club being involved in the delivery of each program. School workshops assisted in the delivery of all three areas of the program, and featured tours of local recycling plants. Quinte Region estimates that approximately 15,000 children had direct contact with representatives of their programs through these initiatives.

Backyard Composting

The backyard composting program, implemented to deal with residential organic waste, was called YIMBY (Yes, In My Back Yard). Launched in the spring of 1992, it involved a threefold approach. An extensive advance promotion campaign was launched to inform residents of the program and increase acceptance levels. This was followed by door-to-door distribution of free composters, as an incentive (*Financial Incentives and Disincentives*) and to overcome the cost and inconvenience to residents (*Overcoming Specific Barriers*).

Quinte Regional Recycling



A householder displays her free backyard composter.

Finally, decals carrying the words, "We Compost Too" were attached to the Blue Boxes of householders, making it clear who was composting in the community (*Norm Appeals*).

Another barrier, the "yuck factor," had to be addressed. To handle residents' fears that the compost bin would be messy, smell bad, or attract unwelcome insects and animals, education reinforced that composting was easy and clean. This was provided through brochures, an information hotline, a composting demonstration site and workshops.

"Shelf talkers" were placed in one grocery store along the produce section as prompts to shoppers to compost (*Prompts*). Shelf talkers were also placed throughout this store to provide information about which products and packaging were recyclable or made of recycled products.

Blue Box

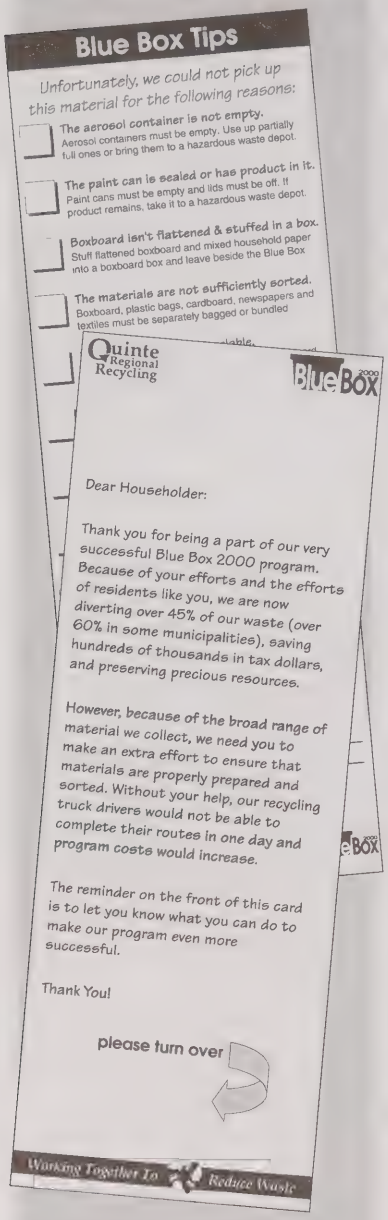
Blue Box recycling had started in 1990 and was expanded in 1991 with the Blue Box 2000 program. The Blue Box containers had proven to be a convenient and appealing method for people to recycle. In order to encourage participation, free boxes were distributed. A promotion and education campaign instructed residents about which materials to recycle and how to put them out for collection. The campaign included door-to-door distribution of "Beside and Inside Cards." These were 8.5" x 14", two-colour, two-sided cover stock cards, listing which recyclable materials should be placed inside the Blue Box, and which should be placed beside. Surveys showed that these were the single most effective promotional tool, as people found them to be compact, attractive and sturdy enough to put them up on their refrigerators (*Prompts*).

Specific reminder cards were also left in Blue Boxes from time to time. These were typically 4.25" x 5.5", two-colour cover-stock cards covering such topics as problems, instructions on handling new materials, and Christmas reminders. Residents therefore received constant personal prompts on the proper use of Blue Boxes. Also, if non-recyclable materials were put out, these were left behind at collection time with, occasionally, a short explanatory note. Finally, each box carried the words "We recycle." In some locations, decals were also placed on the boxes, listing the materials which could be put into them for collection (*Prompts*).

The Blue Boxes acted as an effective and consistent prompt to recycle, because they were seen on the curbside each collection day. The high visibility of participation also served to provide a strong normative appeal.

Case Study

Quinte Regional Recycling



Reminder cards, left in Blue Boxes by the material collectors, provided feedback, built motivation and served as prompts for proper recycling.

Household Hazardous Waste (HHW)

In 1994, the "Clean & Green" program was implemented, which encouraged residents to consider healthy alternatives to toxic household products. This was done with mobile displays and through numerous "house parties" hosted by community members and attended by a staff person. These events offered staff the opportunity to talk face-to-face with residents about the numerous alternative products and recipes that were developed (*Home Visits*). All tips, recipes and alternatives to toxic household products and practices were documented in a "Clean & Green" booklet made available free of charge to residents.

The focus of the collection program was reuse. Paint, which made up the largest portion of material collected, was offered back to residents for free, one day every week, if the paint was still useful. Most of the paint collected was disposed of in this way.

Inconvenience was the other barrier to participation. In order to serve a large geographical area, a "Toxic Taxi" went to numerous communities throughout the year, so that residents would have better access to HHW disposal options (*Overcoming Specific Barriers*).

User Pay

Sidney Township, the second largest municipality in Centre & South Hastings, started a volume-based user-pay garbage program in 1994 to provide an incentive for waste reduction (*Financial Incentives and Disincentives*). For the first year, each household was given 52 "free" tags (only tagged bags would be collected.) Extra tags could be purchased for $1.50 each. Each bag could weigh no more than 40 lbs and could be no larger than 30" x 38". A lift limit of 10 bags was maintained. Fines were introduced for any breach of the by-law, ranging from $10,000-$25,000 for individuals and $50,000-$100,000 for corporations (*Financial Incentives and Disincentives*). No fines had been levied as of 1996.

Measuring Achievements

The following factors were tracked on an ongoing basis: curbside lift counts, waste composition studies, weight of waste going to landfills, weight of Blue Box material, incidence of illegal dumping, tipping savings, impact on collection and processing of recyclables, studies on households' use of backyard composters, and a study of citizens' attitudes and reactions to the program.

Case Study

Quinte Regional Recycling

Quinte Regional Recycling provided positive feedback to citizens through radio spots, video presentations on local television stations, newspaper articles, and a yearly waste reduction calendar. These featured stories about citizens and local businesses who participated in the Blue Box 2000 program effectively and therefore made a difference in their community. A public sign was erected in each of the six participating communities charting how that community was doing.

Financing the Program

Composting

- The free composters cost a total of $500,000 ($23 per composter). Two thirds of the funding for these was provided by the Ontario Ministry of Environment and Energy, and the remaining third by the local municipalities.
- Advertising and promotion to launch the program cost $40,000.
- Distribution of the composters cost $100,000.
- $25,000-$30,000 was spent annually to run the composting program. This had decreased to $15,000-$20,000 by 1996.
- Advertising, promotion and education cost another $25,000 annually. As of 1996, Quinte Region was expecting that this cost would be paid through advertising sponsorships and participating businesses.

Blue Boxes

- The capital cost for the free Blue Boxes was estimated at $170,000 ($4.20 per box).
- Advertising and promotion to launch the program cost $40,000. $15,000 of this covered the production of the "Inside and Beside" cards.
- Each municipality handled its own distribution of the Blue Boxes through their Public Works Departments, at an estimated cost of $5,000.

User pay

- Sidney organized and funded the user-pay program.
- The initial advertising and promotion costs were $5,500.
- Approximately 120 person hours were required to implement the user-pay program, with an annual use of 175 person hours each year afterwards.
- The tags cost $3,000 to produce and $3,000 to distribute.

Quinte Regional Recycling

Results

Overall

Throughout the participating municipalities, the average levels of waste diverted from landfill were:

1991	26%	1994	46%
1992	27%	1995	51%
1993	36%	1996	66%

Composting

- The annual return on investment was approximately 65 percent.
- The percentage of households composting increased from 34 percent prior to the introduction of the YIMBY program, to 65 percent after. A third of participating households had two or more units.
- The percentage of composting homes which were composting effectively increased from 53 percent in 1994 to 65 percent in 1996.
- The estimated diversion per composter was 170 kg/yr (this figure includes those households who were not using their composter to full effect).
- A total of 5,000 tons of material per year was diverted from landfill.
- The net savings in collection and tipping fees to municipalities resulting from 10 years of composting is estimated at $150 per unit.

Blue Box

- The tonnage of recycled material collected rose by 56 percent between 1991 and 1994.
- The net cost per ton of the recycling program decreased 56 percent, because of the economies of scale achieved as more tonnage was collected and processed.
- The revenues resulting from recycling rose sharply (150 percent) between 1991 and 1994. Revenue continued to increase after this period — as of 1995 revenue had increased by 100 percent over the 1994 level. This increase was attributed to the increased tonnage of aluminum and generally higher prices for all materials.
- Almost all citizens were using Blue Boxes by 1996, with a capture rate of 85 percent.

Case Study

Quinte Regional Recycling

User Pay

- The tons of garbage sent to landfill decreased by 46 percent in the year user pay was introduced (1994). This compares to an average decrease of 3.5 percent for the same period for the municipalities who did not implement user pay.
- Reductions in contractor costs for collection, processing and tipping were over $180,000 in 1994 for Sidney Township.
- The average number of bags set out per week per household was 0.75, down 59 percent from 1.83 bags before user pay. Ninety-three percent of households regularly put out one or fewer bags per week. In 1996 other municipalities were still averaging 1.5 bags per week.
- In Sidney, the Blue Box capture rate increased by 18 percent between 1993 and 1994. This compares to an increase of 8 percent for the same period where there was no user pay. In Sidney, Blue Box materials collected at curbside increased in weight by 26 percent.
- 54 percent of kitchen waste was diverted to backyard composters in Sidney in 1994, as compared to an average of 35 percent in non-user-pay communities.
- 100 percent of yard waste was diverted primarily to backyard composters. Only 2 percent of this went to drop-off depots.
- Household hazardous waste placed in garbage decreased by 50 percent. The capture rate for aerosols and paint cans was more than double that in other municipalities.

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Case Study

Quinte Regional Recycling

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The Rapid Spread of Blue Box Recycling

The Blue Box approach to recycling has proved tremendously successful. In Ontario, three million Blue Boxes had been distributed in 1996, with participation rates well over 90 percent. Fifty million people across North America participate in similar or identical curbside recycling programs. Almost all of these programs are derived from the Blue Box programs originally developed in Ontario.

Why has this program been so successful? One reason is that the approach is built on past efforts. Jack McGinnis, then with the Is Five Foundation, drove around the country to see what others were doing. Is Five also examined its own experience running a curbside collection program since 1974. Four key success factors were identified from this research. First, it had to be as convenient to recycle as to throw things away. Second, some sort of standard collection "hardware" was required to make recycling "real" for people. Third, a standard, visible recycling container was needed so that collectors could distinguish between trash and recyclables. Finally, norm appeals had to be built into the approach.

Is Five conceived of and first tested the Blue Box approach in 1977 at Canadian Forces Base Borden, near Barrie, Ontario. Various materials were tried until the light, shatter-resistant, bright Blue Boxes were selected. They then found a strong ally in Nyle Ludolph of Laidlaw. Together they carried out a pilot program in Kitchener in 1981 that tested several variations. Within six months the most cost-effective model had emerged — using Blue Boxes accompanied by a promotional flyer. Participation rates were expecting to be around 30 percent. Instead, they started at 70 percent. While home visits increased participation rates even further, they were not considered to be worth the additional cost.

In 1983, the Kitchener pilot was expanded to full, city-wide implementation, reaching about 33,000 households. Within three months a participation rate of 83 percent had been achieved, rising over the coming months to above 90 percent thanks to the various Tools of Change that had been built into the program.

The program made recycling convenient and participation highly visible. Neighbours saw each other putting out their Blue Boxes at collection time. Residents used the Blue Boxes as a sign that their household was doing something for the environment (*Norm Appeals*). Furthermore, their neighbours' Blue Boxes served as prompts (*Prompts*) when they forgot to put out their own recyclables for collection. In addition, the approach tied recycling closely to an activity that people already did — they took out their recyclables for collection at the same time as their garbage. This made it even more convenient to do, provided another prompt, and helped build motivation over time (*Building Motivation Over Time*).

The next year, in 1984, the Kitchener waste contract came up for tender and a competitor underbid Laidlaw by $600,000. However, after local school boards and citizens made presentations to Kitchener Council expressing their devotion to the Blue Box program, the Council awarded the contract to Laidlaw despite the high premium. Mississauga was the next city to replicate the Kitchener program. Then the approach spread rapidly because a number of powerful partners began to promote it.

Soft drink and can manufacturers wanted lower quotas on the use of returnable bottles. Alcan Aluminium Ltd. wanted to change the Ontario soft drink regulations that basically banned aluminum cans. In 1985 these businesses, their material suppliers and key environmental organizations reached consensus about asking the Ontario Government to change the regulations. They argued that if aluminum cans could be used with lower bottle quotas, the value of the aluminum collected for recycling would pay for the collection of other materials as well. The Ontario Government agreed to change the regulations accordingly and matched the soft drink industry in contributing $5 million for marketing support. The media were also involved in promotional planning and helped generate publicity for the program.

Simultaneously, Ontario's *Environmental Assessment Act* was changed, giving citizens the opportunity to require alternative approaches to waste disposal problems. People who didn't want a landfill near them could successfully challenge it on the basis of having no recycling program going. Municipalities that wanted to establish new landfill sites needed to have a recycling program operating, even if only as a precautionary measure. And with the Blue Box program, the municipality only had to pay a third of the cost of the program, with the remainder coming from the province and the soft drink industry.

While the rapid spread of the Blue Box across Ontario was fuelled by many factors specific to a particular time and place, the adoption of the approach across North America is another matter. The approach works. It illustrates the power of combining a number of the Tools of Change, as described above.

Case Study — The Residential Conservation Assistance Program (ReCAP)

The Residential Conservation Assistance Program (*ReCAP*) provided a free home visit service to the residents of Oshawa, Ontario, aimed at helping householders reduce their use of energy and water and improve their 3Rs practices. Trained home advisors provided householders with one-on-one assistance to identify and undertake conservation and cost-saving opportunities. As of 1996 the program had been renamed *Green CAP* and householders were required to pay a fee for the home visits.

Tools used

- Building Motivation Over Time
- Financial Incentives and Disincentives
- Home Visits
- Norm Appeals
- Overcoming Specific Barriers
- Vivid, Personalized Communication
- Word-of-mouth

Initiated by

- City of Oshawa

Partners

- Ontario Ministry of Environment and Energy
- The Regional Municipality of Durham
- Durham Environmental Network
- Ontario Hydro
- Consumers Gas
- Oshawa Public Utilities Corporation
- Friends of the Second Marsh

Results

Overall, 9,300 conservation actions were undertaken, with $2.5 million spent in related investments.

Background

In the early 1990s, with a growing population of 131,000 people, the City of Oshawa was faced with an increase of nearly 40 percent in the amount of waste going to landfill over a five-year period. During this period, per capita use of water had increased by more than a third and consumption of hydroelectricity was 15 percent higher than the provincial average.

To address these issues, the city developed a conservation program as part of the Green Communities of *ReCAP* Initiative. To incorporate the needs and concerns of residents into the program, the city assembled demographic and economic data, and solicited public input. The findings were used to develop objectives and priorities. In order to accomplish these, a not-for-profit organization (*ReCAP*) was launched in 1993.

Delivering the Program

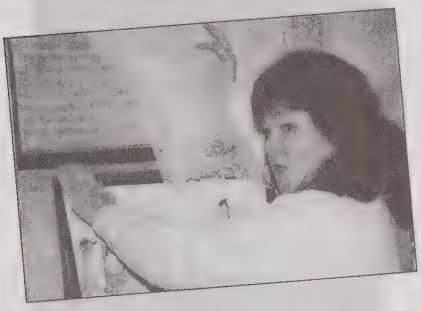
The Home Visit

ReCAP's central activity was a home visit service provided by trained home advisors. Advisors helped householders identify and improve performance on such home energy issues as:

- excess energy consumption and water use
- waste generation and disposal
- use of products generating toxic or hazardous waste
- indoor air quality problems
- use of chemically manufactured pesticides and fertilizers

Home visits took from one to two hours and included three phases. First, an interview was conducted with the householder, which enabled the visit to be personalized to their particular interests to provide a profile of existing conditions and practices in the home. Next, the householder accompanied the advisor on a thorough home energy-use and inspection, during which checks were conducted on the condition of air seals and insulation, humidity levels, the efficiency of appliances, the condition of heating/cooling systems, and the existence of water leaks. On the outside, the advisor checked the condition of the roof, exterior seals on windows, and the overall structure, and looked for drainage problems, proper use of composters, and efficient landscaping practices. The inspection techniques used were explained to the householder so that he or

The Residential Conservation Assistance Program (ReCAP)



Checking the condition of seals and insulation during a home visit.

A *ReCAP* home visit team working together with a householder to develop a list of retrofit/repair priorities.

she could carry out future inspections on his/her own. Advisors commended the householder on existing conservation-related efforts. This, along with the fact that each resident was required to take the initiative to book the visit, helped build motivation to taking action (*Building Motivation Over Time*).

Small modifications and repairs were made on the spot: hot water thermostats were adjusted, toilet leaks repaired, and faucet washers replaced. Free water and energy-saving devices were offered as well. These included faucet aerators and washers, hot water pipe insulation, low energy light bulbs and low-flow shower heads. Some were installed by the advisors to ensure proper use; other devices, such as air sealing gaskets and plugs for electrical outlets, and faucet washers, were left behind for the householder to install.

A demonstration provided a vivid, personalized communication of water savings achieved with the low-flow shower heads (*Vivid, Personalized Communication*). A graduated bag was filled for a timed period from a householder's conventional shower head, and the water level compared to that for the newly installed low-flow model. A feather or smoke pencil was used to demonstrate faint air leaks. Conservation-related repairs or installations were also demonstrated (e.g., caulking, weather-stripping and vapour barriers).

In the third and final phase of the home visit, recommendations were discussed with the resident and clearly recorded on a form left at the home. To further build motivation to take action, the householder was involved in developing the written list of repair/retrofit priorities.

Fact sheets and information on suppliers and contractors were supplied to make it easier for residents to carry out the recommendations. Financial incentives were also provided. Cross-promotional coupon offerings were developed with local retailers for conservation devices, such as compact fluorescent bulbs, insulation, and weather-stripping. The coupons were handed out during home visits and supplied at participating retail outlets (*Financial Incentives and Disincentives*).

To help finance recommendations, participating banks provided home visit participants with low interest loans (1.5 percent over prime) of between $1,000 and $15,000. Recommendations were financed by this means by 4 percent of participating residents.

The advisors continued to make themselves available after the visits. As Ron Levy, Marketing Coordinator, commented, "Support to the householder did not end with the home visit. To make it as easy as possible for people to follow through with recommendations, we offered ongoing advice and support, and would gladly research any special needs" (*Overcoming Specific Barriers*).

The Residential Conservation Assistance Program (ReCAP)

Arranging the Visit

Interest in the home visits was generated through self-promotion (ads, flyers, lawn signs, posters, pamphlets, mall and home show displays), promotion by others in the community (word-of-mouth, media coverage) and promotion by partners (promotional inserts in tax/utility bills and employee paycheques, and articles in employee newsletters). It was found that promotion by others in the community was the most effective, with nearly 60 percent of Oshawa residents first hearing about *ReCAP* through either media or word-of-mouth (*Word-of-mouth*). Partner promotion accounted for a further 20 percent.

Word-of-mouth promotion accounted for 28 percent of bookings (*Word-of-mouth*) These referrals were encouraged by advisors during the home visits using the statement, "If you were happy with the service you received, please tell others about it." This statement was repeated on the householder's copy of the recommendation sheet. Advisors would also offer to leave promotional pamphlets for the resident to distribute to others.

Mass media articles proved to be an effective way of getting the message out to the public that others in their community were getting involved in home conservation efforts through *ReCAP* (*Norm Appeals*).

Tax/utility bill inserts accounted for 19 percent of bookings. They were found to generate an immediate "bulge" in bookings, lasting about two weeks.

Overall, the most common motivators for booking a home visit were found to be water, energy, and therefore money savings. These factors accounted for two thirds of all bookings. Purely environmental concerns motivated participation in only 7 percent of the cases.

Motivators

Recommendations were directly linked to each householder's motivators. Advisors listened carefully to the householder's remarks, both during the initial interview and throughout the home visit, and identified clues that suggested where his or her interests lay.

For example, if a householder expressed interest in gardening or a well-maintained garden was noted, advisors would stress garden-related recommendations (e.g., using native plants, planting shade trees, composting). If there were children in the home, safety related issues might be stressed (e.g., safe storage of hazardous products, non-toxic cleaning recipes, alternatives to pesticides).

The Residential Conservation Assistance Program (ReCAP)

Measuring Achievements

To gauge its success, *ReCAP* undertook a six-month follow-up telephone survey of participating householders, designed to obtain information about the success of various marketing strategies, what motivated a response to the program, the degree of uptake on recommendations made during the home visit, and to collect general feedback.

Financing the Program

In its first year of operation, approximately $2.25 million was invested in *ReCAP*. Of this, $1.2 million was provided by the Ontario Government, with the remainder coming from other partners through in-kind donations. The $1.2 million provided by the Ontario Government was used for:

Office set-up and management	26%	$ 312,000
Assessment costs (advisors, supplies, travel)	58%	$ 696,000
Community outreach (advertising, promotion)	5%	$ 60,000
Other	11%	$ 132,000

Results

The following results were achieved during the first year of operation, based on a six-month follow-up period:

- approximately 2,500 home visits were made
- 40 percent of all recommendations were carried out
- 9,300 individual conservation-related actions were undertaken
- an average of $1,000 was invested per household which translated into an estimated $2.5 million for all homes visited

The highest rates of uptake were for recommendations that were demonstrated in the home, or for which the materials needed were provided. For example, 83 percent of householders installed insulation around their hot water pipes within six months of a home visit. The installation technique was demonstrated by the home advisors, and a supply of free foam insulation was provided. Of those householders provided with air sealing gaskets and plugs for electrical outlets, 90 percent went on to install them.

Low rates of uptake often occurred for recommendations that could not easily be tied to motivators. For example, householders only followed through with upgrading to efficient compact fluorescent light bulbs 11 percent of the time. This recommendation could not be tied to common motivators other than savings, and represented only a long-term return on investment.

Case Study

The Residential Conservation Assistance Program (ReCAP)

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The Ontario Green Communities

As of 1996, Green Communities were established in 15 Ontario centres, serving territories throughout much of the province. Each was locally planned and managed, with its own board, budget and professional staff. These non-profit, community-based ventures benefited the environment and the economy by improving energy and water efficiency, reducing waste, preventing pollution and promoting ecologically appropriate practices.

The Green Communities started in 1991 with financial, in-kind, and technological support from Ontario's Ministry of Environment and Energy (MOEE) and a wide range of provincial and local partners. This resulted in leveraging of community-based resources, with a long term goal of financial self-sustainability. Each participating community identified its own issues and priorities, and tailored activities to the local situation.

Within each community, the initiative was directed by a multi-stakeholder steering committee with membership typically from municipal and regional waste and water departments, energy utilities, Chambers of Commerce, Boards of Education, community and environmental groups, building trades, etc. The communities developed their own action plans to address resource conservation in the residential, industrial, and commercial sectors.

A core activity in each community was the Green Home Visit, of which 80,000 had been performed by the end of 1996. Trained staff spent between one and two hours with the householders in each home, identifying opportunities for environmental and economic savings, and often installing conservation devices provided by partners that generated immediate savings. The householder was left with customized recommendations for changes to both house and lifestyle, linkages to registered local contractors and access to low interest financing. According to follow-up surveys in a number of communities, an average of $1,300 per household was spent implementing recommendations from each home visit.

In 1995, in keeping with a change in government policy, the MOEE announced an end to its role as lead partner. Most of the Green Communities have continued to thrive by improving their operating efficiencies, offering new services and developing additional partnerships, particularly with the private sector.

They also incorporated a provincial network of Green Communities called the Green Communities Association (GCA), through which they were able to share information and transfer skills. The GCA also enabled them to cooperate in developing strategic services and trade alliances, and building new partnerships.

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ReCAP is one of four Green Community case studies in this Workbook — the other three are *The Environment Network, Guelph 2000* and *Peterborough Green-Up*.

Case Study

Sheffield Mills Community Association

The organizing efforts of *Sheffield Mills Community Association* show what a small community can do to help its residents reduce waste. A collection depot, home visits and coaching helped people to start recycling and composting.

Tools used

- Home Visits
- Neighbourhood Coaches and Block Leaders
- Obtaining a Commitment
- Overcoming Specific Barriers
- Vivid, Personalized Communication

Initiated by

- Sheffield Mills Community Association

Results

Over three quarters of households were recycling all items accepted by the depot. Half of those households not practising the suggested waste reduction measures made a verbal commitment to do so.

Background

In the spring of 1996, the Province of Nova Scotia instituted a ban on the disposal of Blue Box recyclables and yard waste from residential sources. A ban on compostable wastes had also been set for the following year. These events prompted representatives of the small agricultural community of Sheffield Mills (population 414) to take action to ensure that community members could conveniently comply with the ban.

The local community association convened a workshop in February of 1996 to discuss waste management options, in which both private and government representatives were invited to participate. Workshop participants decided to promote three waste-related activities. The association wanted residents to separate their wastes at home, compost the organics, and bring the recyclables to a nearby depot. A concern raised was that the nearest recycling depot was to be located 10 kilometers outside of Sheffield Mills.

At a later date, it was decided to promote four additional waste reduction activities as well: buying concentrates, choosing products with the least packaging, buying in bulk and using recyclable or durable goods.

Delivering the Program

Recycling Depot

A utility trailer, for which no special permits were required, was acquired to serve as Sheffield Mills' recycling depot. A newsletter was mailed out to all members of the community with information about the depot. Conveniently located across from the community centre, the depot was fitted with three large bins to collect household recyclables. Arrangements were made for volunteers to empty the trailer occasionally at the nearest provincially run recycling depot.

Home Visits

In August, a summer student was hired to undertake 20- or 30-minute home visits by appointment in some of Sheffield Mills' homes (*Home Visits*). All of the desired waste reduction activities were discussed during each visit and relevant literature was handed out. Questions and concerns raised by householders were addressed at this time. A four-minute video was made available, which could be played during the visit (*Vivid, Personalized Communication*). The

video conveyed four waste reduction tips: buy concentrates, choose products with the least packaging, buy in bulk, and use reusable or durable goods. If the video could not be played, the information was communicated orally.

A request for a commitment was then made using the following statement, "Of the four waste reduction tips mentioned on the video, which do you feel you would be able to implement?" (*Obtaining a Commitment*).

Coaching

Some households receiving a home visit were also offered coaching (*Neighborhood Coaches and Block Leaders*). The coaches helped residents to work out a suitable strategy for composting and to make any arrangements necessary to implement their choice. For example, when coaches learned that many households had made their own composters, they began to offer assistance in building composters to others (*Overcoming Specific Barriers*).

Measuring Achievements

All households in the community were randomly assigned to one of three groups:

- a control group of 50 homes that received only the written information on waste reduction that had been mailed out to all households in the community
- a group of 38 households that received a home visit
- a group of 50 households that received a home visit and coaching

At the time of the home visits, a questionnaire was used to collect information on waste reduction activities, including changes made since the introduction of the recycling depot.

At the time of the writing of this Workbook, the community was planning to weigh the waste from each group while it is collected on a normal municipal garbage collection day.

Financing the Program

Every month, the depot generated $80 in bottle deposit returns, which was used to cover the cost to the program of $125 for hiring a summer student to undertake 38 of the home visits. This funding was matched by a federal student employment initiative. The remaining 50 home visits and coaching activities were undertaken by a volunteer, involving an estimated 50 hours of work.

Sheffield Mills Community Association

The deposit returns also covered $70 in printing and mailing costs, both for notices about the recycling depot, and for information on the waste reduction activities being promoted. Use of the trailer was donated.

Finally, an option program for traffic fines enabled people to "pay" their fines through community service. This program covered time spent in program development and in helping residents build their composters.

Results

Six months after the local recycling depot was introduced, the following results were recorded:

- recycling rates doubled from 40 percent to 80 percent for most items
- 80 percent of households recycled at least some of the non-deposit items accepted by the depot
- 50 percent of households donated deposit items (e.g., beverage bottles) at the depot
- on average, 50 percent of those who had not already undertaken the waste reduction measure being promoted, made an oral commitment to do so after the home visit

As of February 1997, the coaching and evaluation phases of this program were still in progress.

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Case Study — The Toxic Challenge

To encourage people to reduce their use of toxic-containing consumer products, a door-to-door campaign was organized in two neighbourhoods of Metropolitan Toronto. Summer students staffed the campaign in which residents were asked to try non-toxic or less toxic alternatives.

Tools used

- Home Visits
- Obtaining a Commitment
- Overcoming Specific Barriers
- Vivid, Personalized Communication

Initiated by

- Toronto Environmental Alliance

Partners

- Environmental Youth Corps
- Canada Trust

Results

Within three months there was an average 18 percent drop between past and intended future use of toxic consumer products. Of those who tried alternatives, three quarters did not intend to return to using toxic products. After two years, with no further promotional efforts, no clear impact of the program could be detected.

Background

The Toronto Environmental Alliance (TEA) wished to address the health and environmental impacts associated with the use of toxic-containing consumer products (toxics), and the household hazardous wastes (HHW) they generate.

TEA had concerns about traditional end-of-pipe solutions such as municipal-run HHW collection depots, because less than 5 percent of the public use these depots and they are expensive to run. Instead, TEA wanted to focus on prevention measures — ones that involved the participation of the community. To do so, a door-to-door campaign was launched in 1993.

Based on the apparent success of this campaign, a similar campaign was undertaken in 1994. Follow-up telephone surveys were included to measure both short-term and long-term behavioral changes.

Delivering the Program

During a seven-week period in the summer of 1994, 5,809 households were approached cold, door to door, by students trained as canvassers for the campaign. Residents were told about the health and environmental impacts associated with the use of toxics.

They were then asked to complete a "report card" by indicating the types of toxics they had purchased in the previous six months (*Vivid, Personalized Communication*). Based on the responses, a grade was given. If one or no toxics had been purchased, they received an "A," accompanied by the statement, "Congratulations! You have an environmentally friendly home." Alternatively, if four or more toxics had been purchased, householders received a failing grade of "D," accompanied by the statement, "You are hooked on toxics."

After filling out the report card, people were invited to participate in *The Toxic Challenge* by agreeing to reduce or eliminate their use of toxics (*Obtaining a Commitment*). Of those approached, 1,154 households (22 percent) agreed to participate.

Those accepting the challenge were given a support kit containing information on the potential human and environmental effects associated with the use and disposal of toxics. Information on non-toxic or less toxic alternatives was also included. Toxics that were targeted included: chemically-manufactured pesticides, herbicides, fertilizers, chlorine-based cleaners, chlorine bleach, drain cleaners and

The Toxic Challenge

disposable batteries. To help people fulfill their commitment, TEA ran a telephone support line.

Initial Research and Training

Canvassers were provided with a series of five workshops covering health and environmental impact issues, product labeling, pesticide regulations, HHW disposal options, organic lawn care and sustainable landscaping. A workshop was also provided on safe and effective canvassing techniques.

TEA facilitated a multi-stakeholder process bringing together a team of pesticide and waste activists, environmental groups, and government representatives. The team worked together to develop a range of effective alternatives to be included in the support kit.

Measuring Achievements

To measure short-term behavioural changes, a follow-up telephone survey was conducted after three months among a third of those residents who agreed to participate in the campaign. Respondents were asked about toxics purchased since their agreement, and about alternatives tried.

To measure long-term behavioural changes, a second telephone survey was conducted two years later. The survey groups included:

- householders who had agreed to make changes (36 respondents)
- householders contacted during the campaign, but who did not agree to make changes (50 respondents)
- a control group of householders not contacted during the campaign, but who were neighbours of those contacted (50 respondents)

The same questionnaire was used for all three groups. Respondents were asked to estimate how often in the previous two years they had purchased each of the targeted toxics. They were also asked to estimate how often they had tried any associated alternatives, or made use of a HHW depot. Respondents estimated their use frequency using a numbered scale, between "never" and "very often."

The Toxic Challenge

Financing the Program

The Environmental Youth Corps (EYC) funded one project coordinator for 16 weeks and 12 canvassers for 12 weeks. Salaries for the 12 canvassers totalled approximately $35,000.

The Etobicoke Chapter of Canada Trust's Friends of the Environment Fund covered printing costs for the support kit. The cost of developing and printing the kit was approximately $2,000. Some additional material included in the kit was donated. Workshop training for canvassers was provided by resource people from a variety of organizations who donated their time.

Results

Three-Month Follow-up Survey

Among householders who had agreed to make changes, *The Toxic Challenge* campaign results showed:

- an average 18 percent drop between past and intended future use of toxics
- 73 percent of those who tried alternatives did not intend to return to using the toxic counterparts

The degree to which individuals tried alternatives varied, often reflecting whether opportunities for change had yet arisen. Most (72 percent) reported having tried non-chlorine-based cleaners, 52 percent had tried alternatives to chemically manufactured herbicides, 20 percent had tried alternatives to insecticides and 9 percent had tried bleach alternatives. About 27 percent had made use of a HHW depot, compared to an average of less than 5 percent among the general public. A few (3.3 percent) cancelled their lawn care service or switched to a company's organic option.

Two-Year Follow-Up Survey

Two years later, with no further promotional efforts, the gains made by the program appeared to have diminished dramatically. Those who had received the home visits were not significantly different from the control group in terms of purchasing the targeted toxics. Furthermore, four out of every ten households that had agreed to make changes did not remember having made the agreement. The households that did remember reported a significantly greater use of bleach alternatives, non-chlorine-based cleaning recipes and non-chemical pest control methods. However, there was no corresponding reduction in the purchase of the toxic products that these alternatives replace, so the accuracy of these results is questionable.

The Toxic Challenge

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Of the households that were approached "cold" and that completed this report card, one in five agreed to participate in *The Toxic Challenge*. In comparison, *We're Toxic Free* achieved a one in two participation rate using a less confrontational survey.

Step #1

CONGRATULATIONS,
you have taken the first step.

Keep this report card to measure your success.

ADMIT THERE'S A PROBLEM

Has anyone in your house bought or used any of the followinghazardous household products in the last six months?

	YES	NO	
1	[10]	[0]	Chemical herbicides or chemicals designed to kill unwanted plants such as Killex™ or Roundup™
2	[10]	[0]	Chemical insecticides or chemicals designed to kill unwanted insects such as Diazinon
3	[10]	[0]	Synthetic chemical fertilizers
4	[10]	[0]	Chlorine-based cleaners such as Ajax™ or Comet™
5	[10]	[0]	Chlorine bleach for bleaching clothes
6	[10]	[0]	Drain cleaners such as Drano™
7	[10]	[0]	Disposable batteries

How did you score?

0-10	"A"	Congratulations! Yours is an environmentally friendly home.
20-30	"B"	You've got the right idea, but there's room for improvement.
40-50	"C"	You are an average chemically-dependent Canadian family.
60	"F"	You are hooked on toxics!

TEA invites you to take the "Toxic Challenge." **For the health of your family, your community, and EARTH itself**, sign the pledge on the back and live "Toxic Free!"

Case Study

WaterSmart

To reduce peak period water consumption and increase awareness of the need to conserve water, a program involving watering restrictions, bicycle patrols and student exercises was implemented in Kamloops, British Columbia.

Tools used

- Financial Incentives and Disincentives
- Mass Media
- Norm Appeals
- Prompts

Initiated by

- City of Kamloops Utilities Department

Partners

- BC Power Smart

Results

- Peak water consumption was reduced by 15 percent.
- $100,000 per year in electricity costs was saved from reduced pumping of water.
- $500,000 was saved annually in deferred interest charges.
- Each summer the program paid for itself within the first month, and generated an annual return on investment of over 500 percent.

Background

The City of Kamloops' pumping facility, supplying approximately 69,200 users, had reached its maximum pumping capacity during the peak summer demand period in 1987. With a growing population, Kamloops was concerned that it would soon be unable to pump enough water to supply the peak demand without expanding and upgrading their facility. They estimated that if consumption rates were not reduced they would need to increase pumping capacity at a cost of approximately $15 million by 1997.

In 1992, the *WaterSmart* program was launched in an effort to delay expansion by reducing demand for water in the community. The city was unwilling to introduce water metering; instead, it implemented watering restrictions in the summer months and began an education and promotion campaign to increase residents' awareness of the personal and environmental benefits of water conservation.

Setting Objectives

Kamloops set the objectives of reducing peak period water consumption by 10 percent between 1992 and 1996, and 15 percent from 1997 on.

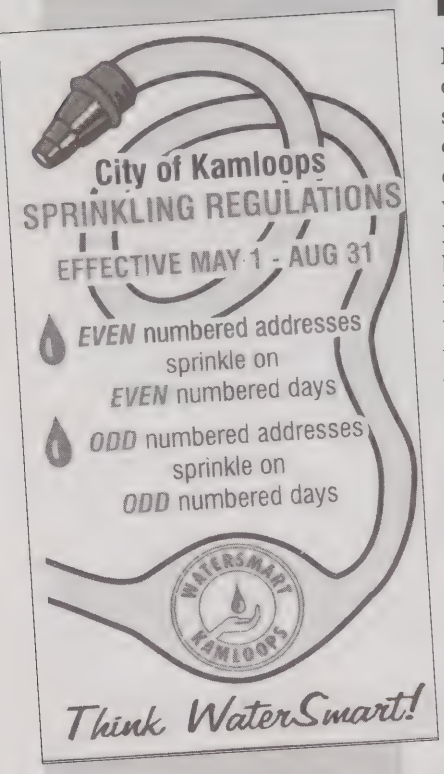
A 15 percent reduction in usage would defer the expansion of the delivery system until the year 2006.

Getting Informed

Other water conservation programs conducted in Denver, Colorado, and in cities in California were researched to learn how these communities had encouraged water conservation. The school program was modelled after one in Oakland, California. The Kamloops school program targeted grade 6 children because a literature review revealed that children at the grade 6 level were particularly receptive to environmental issues. These students were able to understand the material and became personally involved in practising conservation.

The student programs were first introduced in 1994 as a pilot test in two schools, to determine if any design modifications were needed. The project ran very well and no changes were made at the end. In 1996, there were 25 classes at 18 schools involved in the *WaterSmart* school program.

WaterSmart



This fridge magnet prompted compliance with the watering restrictions.

Delivering the Program

Residents were allowed to water their gardens on even or odd days only, depending on which side of the street they lived, during the summer months. Some pressure to comply with the restriction came from residents not wishing to be seen watering on the wrong days. In addition, fines between $25 and $1,000 were set for illegal watering (*Financial Incentives and Disincentives*). No fines had been levied as of 1996. However, in the spring of 1997 residents were to be informed that fines would begin to be handed out during the following summer. As a further incentive, residents were told that if they were able to reduce demand for water then any increase in water costs would be deferred, because the water delivery system would not need to be expanded in the near future.

Four college students were hired to patrol residential streets by bicycle to ensure that people were not watering on the wrong days. If the students did see someone watering illegally, they would stop to remind residents of the watering restrictions, provide water conservation information, and answer any questions (*Prompts*). On rainy days, the students staffed information booths in local shopping malls. The one-on-one contact proved to be a very effective method of communicating with residents, who said that speaking to students on bicycle patrol made a greater impression on them than television advertisements would have.

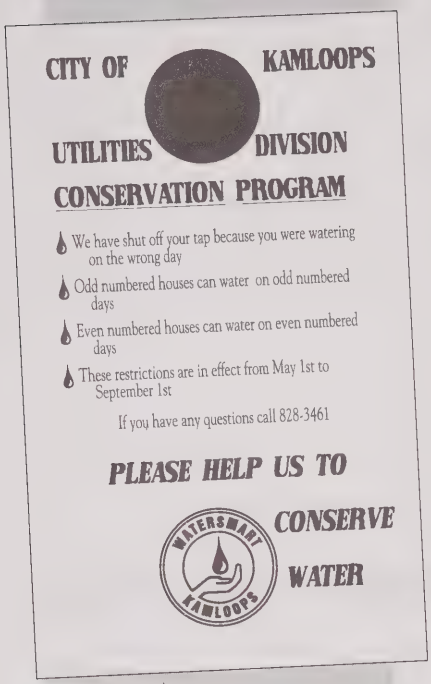
Practical action-oriented information was also provided to residents using mass media. A "Tip of the Week" contest was run with the cooperation of a local newspaper and radio station. Once a week, a water saving tip was published in the newspaper and radio listeners were invited to call in the tip. The first people to call received either a *WaterSmart* t-shirt, a mug, or a low-flow shower head. Once a month, the name of one winner was drawn for a grand prize of an irrigation system, landscaping books, or a gift certificate for a local garden centre. A poster contest was also run for the children of Kamloops. The winners' names were published in the newspaper and each received a t-shirt as a prize.

Advertisements were run on television, in newspapers and on the radio. The 30-second television spots were very expensive and, dollar for dollar, were found to be less effective than other promotional strategies. People were also irritated by the jingle. For these reasons, money was diverted from television advertising in 1996, to add two more students to the bicycle patrols.

In 1995, with the help of federal and provincial grants, the city built a xeriscape demonstration garden to be used as a focal point in efforts to educate the public about low-water use landscaping. In addition, city staff welcomed every opportunity to speak to the public in small groups, including accepting every invitation to speak at garden clubs, parent/teacher nights, science fairs, etc.

Case Study

WaterSmart



This card, left on a tap turned off by a water patroller, reminded residents of watering restrictions.

In 1996, a short play on water conservation, written by students of a local high school, was performed for about 1,000 grade 3 and 4 students. The program was also promoted at special events and home shows, where booths were set up to distribute brochures, promotional material and refrigerator magnets reminding people of watering restrictions (*Prompts*). Water-saving devices were displayed and demonstrated wherever possible.

Grade 6 students were asked to keep a daily log of how much water their family used, and to take home a brochure about water conservation to their parents, helping to show both children and their parents just how much water their family consumed. The children were instructed on how to conserve water with the aid of a handbook adopted from Oakland, California, featuring "Captain Hydro." A city employee conducted two school "labs" which demonstrated the water cycle and water filtration, and helped the students learn what it takes to bring water to their homes. The children were very effective in promoting water conservation to their parents.

Measuring Achievements

To monitor the amount of water supplied to the residents of Kamloops, intake pump meter readings were tracked on a daily basis. Since rainfall and temperature affect how much and how often people water their gardens, rainfall and temperature reports were used to identify the five consecutive driest and warmest days of the year. The average daily per capita water flow was then calculated for this five-day period. This allowed the City of Kamloops to compare five-day peak usages for various years.

Providing Feedback

No feedback had been provided to residents as of 1996, but an advertisement was to be placed in the newspapers informing citizens of the success of the program. The city planned to include graphics depicting the amount of water that was saved, together with a letter of thanks to citizens.

Financing the Program

The City of Kamloops funded the *WaterSmart* program in its entirety from 1992 to 1994. In 1995 the BC Power Smart program provided a grant for $30,000.

Case Study

WaterSmart

In 1995, the cost of running the program was $91,000, allocated as follows:

Advertising	$ 31,000
Administration and planning	$ 35,000
Promotional materials	$ 12,000
Salaries for bicycle patrol	$ 11,000
City wages	$ 2,000
Total	**$91,000**

The 1996 costs as of October 31 were $82,000, allocated as follows:

Advertising	$ 11,000
Administration and planning	$ 20,000
Promotional materials	$ 13,000
Salaries for bicycle patrol	$ 20,000
City wages	$ 18,000
Total	**$82,000**

Results

- The annual, average, five-day peak water usage for 1992 through 1996 was reduced by 14.5 percent, as compared to the average for the years 1984 through 1991. This is remarkable considering that the city had not used water metering to help reduce water consumption.
- The city has also calculated a savings of $500,000 annually in deferred interest charges by avoiding the need to expand the delivery system in 1997.
- As a result of the decreased demand, the city's hydroelectric bill was $100,000 less in 1995 than in 1994. This alone covered the cost of the program.

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Case Study

We're Toxic Free

The City of Peterborough conducted a door-to-door pilot campaign to influence residents' behaviours related to the purchasing and disposal of toxic household chemicals. Summer students staffed the campaign in which residents were asked to try non-toxic or less toxic alternatives.

Tools used

- Building Motivation Over Time
- Norm Appeals
- Obtaining a Commitment
- Prompts

Initiated by

- City of Peterborough

Partners

- Local businesses

Results

Few changes in behaviours related to purchase and disposal of lawn care, laundry and cleaning products were identified.

Background

The City of Peterborough wanted people to switch to non-toxic product alternatives. Staff at the City's Waste Reduction Office developed a pilot program which focused on lawn care, laundry, and all-purpose cleaning products.

The pilot ran in the summer of 1996 — with the planned opening of a permanent household hazardous waste (HHW) collection depot in the fall. The city had been promoting the proper disposal of paints, herbicides and pesticides, and it was an opportune time for the promotional campaign. The program was based on the methods developed for *The Toxic Challenge*.

Delivering the Program

A team of two canvassers conducted door-to-door cold calls within selected middle-income neighbourhoods. The canvassers explained that they were working for the city, and were filling out a checklist.

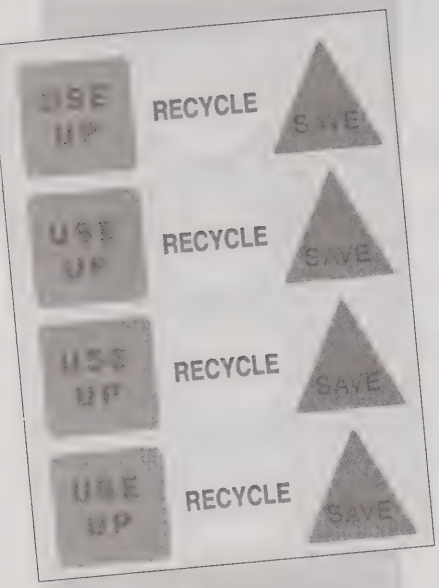
The checklist first asked information about Blue Box practices, then about consumer products containing toxic chemicals (HHW) purchased in the previous six months. The checklist built motivation in two ways. First, it recognized waste reduction actions already taken. Then, the request to fill out the survey was used to lead to the larger request for participation in the program. The end of the checklist read, "Are you interested in reducing the amount of toxins in your home? If so, we invite you to participate in our '*We're Toxic Free*' campaign."

Those who agreed to participate received a kit containing information on the reduction and safe disposal of HHW. The canvassers explained the contents of the kit. Fact sheets were included on alternatives, related health issues, potential environmental impacts, waste reduction, safer disposal methods, and contact names and numbers.

The kit also contained stickers with directions to apply them as prompts on specific HHW products in the home (*Prompts*). The stickers came in a variety of shapes and colours, with words such as "save" or "recycle" printed on them. An accompanying chart provided information about environmentally preferred disposal options.

Case Study

We're Toxic Free



Self-adhesive labels served as prompts when applied to products.

Included in the kit was a pledge, to be signed by the householder (*Obtaining a Commitment*). During a follow-up telephone call a week after initial contact, participants were asked if they would agree to their names being printed in a newspaper notice about the project. A sticker which read "We're Toxic Free" was to be placed on the Blue Box to increase visibility of participation (*Norm Appeals*). Many participants thought that the stickers were misleading because they were reducing their use of toxins rather than totally eliminating them.

Measuring Achievements

Four hundred homes from the selected neighbourhoods were randomly divided between a control group and an intervention group. Of the 97 people who answered the door, 53 agreed to complete the survey. Of these, all but three committed to participating in the campaign.

When receiving the kits, participants were told that they would soon be reached by phone. This was done about a week later, at which time a survey was undertaken to obtain feedback on the kits, and on changes in behaviour. Participants were then informed about a second call later in the summer, and they were contacted this second time some seven weeks later. At that time, a concluding telephone survey was undertaken, both among the 50 pilot participants and the 50 households in the control group, to collect information about the purchase of, and attitudes toward, HHW, as well as awareness of related environmental issues.

Financing the Program

Salaries for two summer students who undertook the pilot program was $3,120. The cost of materials was approximately $500. City staff time, use of office space and equipment, and training was valued at an additional $1,500.

Results

The visits* resulted in few effects on the purchase and disposal of lawn care, laundry and cleaning products. However, those visited were eight times more likely to have disposed of their lawn care products at the HHW depot. This may illustrate a synergy between the pilot program and the promotional campaign for the city's HHW depot. Those visited also claimed to be more likely to switch to a toxic-free laundry or cleaning alternative, and had significantly more positive attitudes towards alternative cleaning products.

* Relative to the control group.

Case Study

We're Toxic Free

Contact

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This simple pledge form might have been more effective if the commitment being made was more clearly tied to specific actions.

We're Toxic Free !

We will use the information provided through the "We're Toxic Free" campaign to minimize the use of toxins in our home and yard. We're working at becoming toxic free for the benefit of our health, the Peterborough community and the natural environment.

Signed, _____

This non-confrontational questionnaire was completed by 60 percent of those approached. All but three agreed to sign the accompanying pledge form.

The "We're Toxic Free" Campaign

What materials do you put in your Blue Box?

( ) Cardboard
( ) Boxboard, paper bags
( ) Newspapers, magazines, fine paper, paperback books
( ) Plastic bags, other film plastic
( ) Metal cans, foil
( ) Plastic bottles, tubs, jugs
( ) Glass bottles and jars

Has anyone living here bought or used any of the following products in the past six months?

Yes	No	Less Toxic Alternative	
( )	( )	( )	Chemical fertilizers (helps to make the grass grow)
( )	( )	( )	Chemical herbicides (kills weeds and unwanted plants)
( )	( )	( )	Chemical pesticide (kills bugs on the lawn or in the home)
( )	( )	( )	Chlorine-based cleaners ("Ajax" or "Comet")
( )	( )	( )	Chlorine bleach
( )	( )	( )	Drain cleaners
( )	( )	( )	All purpose cleaners
( )	( )	( )	Chemical solvents (paint, glue, polishes, correction fluid)

Are you interested in reducing the amount of toxins in your home? If so, we invite you to participate in our "We're Toxic Free" campaign.

Case Study — Whitney Public School

Students at *Whitney Public School* were given a homework assignment to take responsibility for their home's Blue Box recycling for one week. The assignment was to be carried out by the students with parent participation. Information was provided to each home on new materials that were being accepted in the Blue Box.

Tools used

- Prompts
- School Programs that Involve the Family

Initiated by

- Whitney Public School (Rick Hay)

Results

A quarter of the families added new materials to their recycling following the assignment.

Background

In June of 1996, the administration at *Whitney Public School* in Toronto initiated a project to make Earth Week personally meaningful for the students and their families. There had recently been an increase in the range of items that residents could put in their Blue Boxes for recycling. The project was designed to increase awareness of recycling and the new recyclable materials introduced to the Blue Box program, and to promote greater recycling rates among the students at *Whitney Public School* and their families.

Delivering the Program

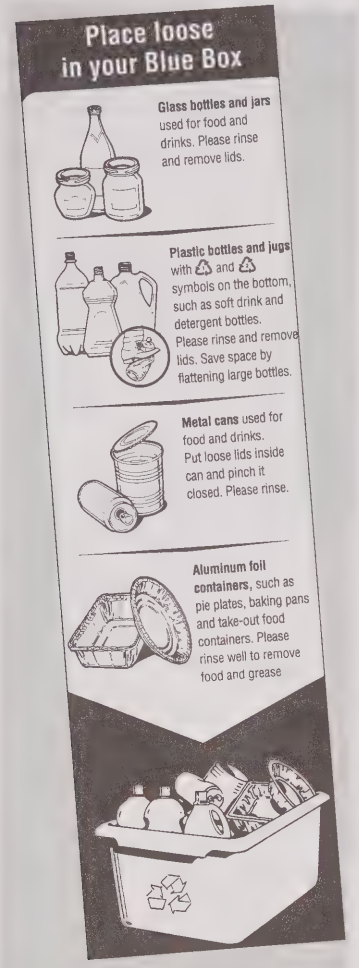
Every child at the school received special homework for one week during Earth Week — students were instructed to take responsibility for the recycling program in each of their homes for that week. They were each given a kit which included a letter from the school outlining the assignment and a flier from Metro Works listing recyclable materials and how they were to be sorted (*Prompts*).

Parents were instructed in the letter to monitor their child's recycling efforts, to help him/her count the number of items recycled during the week, and to indicate on the sheet provided if their child had satisfactorily completed the assignment. In order to actively participate in their child's assignment, parents needed to read the Metro Works flyer, thereby increasing the parents' awareness of which materials could be recycled.

Measuring Achievements

Following the one-week assignment, a questionnaire was sent home with the children to their parents, who were asked about their awareness of which materials could be recycled prior to Earth Week and whether there had been any change in awareness as a result of the project. A total of 390 questionnaires were sent home and 86 families responded. While it is not possible to generalize with confidence from such a low response rate, the results provide some indication of what can be achieved by such an approach.

Whitney Public School



A portion of the Metro Works flyer listing the kinds of materials that could be recycled.

Results

- one quarter of the families made changes in their recycling habits to include new recyclable materials as a result of the assignment
- 20 percent of the families indicated that they increased the amount of material they recycled by 21 percent to 40 percent
- 4 percent of the families increased the amount of material they recycled by more than 40 percent
- half of the families stated that their awareness of which materials could be placed in the Blue Boxes increased
- the other half were already recycling the newly accepted items — fine paper, boxboard, and aluminum containers

All of the respondents had used their Blue Boxes prior to the Earth Week homework assignment. These results indicate that there was already a high level of awareness and participation in Blue Box recycling among the parents who responded to this questionnaire. Even with 100 percent previous participation, the assignment did serve to increase awareness of recyclable products in over half the families and increased recycling of new materials among a quarter of the respondents.

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Whitney Public School

Dear Parents,

Today, all Whitney students have been assigned Homework for the Planet. Your grade 1-6 children are to take control of your family's recycling program for one week. On Thursday evening evaluate whether they have met the criteria below. They should complete the accompanying graph Thursday night (based on the Blue Box contents at that time). If you have a sensitive scale for measuring metric mass, please use that method to measure the amount of recyclable materials. Otherwise your children should count the number of items of each type. Help them come up with a way of labelling the axis.

(child's name)

	Yes	No
She/he took charge of the family's recycling program and ensured that all of the recyclable materials were put into the proper containers	❑	❑
She/he saw that Blue Boxes were taken to the curbside on pick-up day (if the container was full)	❑	❑
By the end of the week, she/he knew which materials can be put in the Blue Box (without looking at the *We Recycle* bulletin)	❑	❑

parent's signature

This letter helped to involve the students' parents.

Case Study — Zehr's

A campaign at a *Zehr's* store in Kitchener, Ontario, reminded customers to buy products which used less packaging, were more concentrated and safer for the environment. Some customers were asked to make a commitment to purchase "green" alternatives and to watch an in-store information video showing other people making their decision to buy "green."

Tools used

- Obtaining a Commitment
- Prompts

Initiated by

- Nancy Gallant and Dr. Doug McKenzie-Mohr, St. Thomas University
- Vivian De Giovanni, City of Waterloo

Partners

- District Branch for Zehr's stores

Results

No change in purchasing behaviour was achieved.

Background

In 1995, Gallant, McKenzie-Mohr, and De Giovanni initiated this campaign to encourage waste reduction, arising from a concern about diminishing landfill capacity and the environmental impact of solid waste.

Getting Informed

Previous studies had suggested that people were unlikely to purchase greener products because they were difficult to identify and hard to find. Research also showed that prompts such as shelf talkers could be very effective in overcoming these barriers. Other strategies suggested by the research included norm appeals and requesting a commitment from participants.

Delivering the Program

The campaign was implemented in a *Zehr's* store in Kitchener over a two-week period in early 1995. Before the campaign began, 168 products were selected for having the least-waste packaging, being concentrated, and/or being otherwise safer for the environment. These products were identified in the store by brightly coloured shelf talkers placed directly beneath the products and carrying brief explanations of each product's green attributes (*Prompts*). The prompts were promoted in the store through three dual-sided posters and several thousand fliers handed out at the store entrance.

One hundred and ten grocery shoppers were selected at random and asked to:

- Sign a commitment form stating that they would consider purchasing the products identified by the shelf talkers (*Obtaining a Commitment*); and/or
- View a video which showed people choosing to purchase products identified by the shelf talkers.

Case Study

Zehr's

Measuring Achievements

A second Zehr's store in Kitchener, which did not participate in this campaign, was selected to serve as a control. The sales from both stores were monitored using the stores' existing electronic inventory systems. Sales data were collected for a period of two weeks prior to the beginning of the campaign to provide base line sales figures for each of the 168 products. Sales of these items were then tracked for both stores during the campaign period and compared.

Forty-one shoppers were randomly selected upon entering the store to sign commitment forms only, 35 to view the video only, and 34 to both view the video and sign the commitment form. The 67 shoppers who formed the control group were randomly selected once they had paid for their groceries; they did not view the video nor sign a commitment form. All of these shoppers were asked for their grocery receipts, which were used to compare the four groups' purchases.

Of the 168 products selected, 77 were excluded from analysis because their price had changed over the course of the campaign, electronic data on price and quantity were not available, or the products were not carried by both stores during the four-week period. As a result, the sales of only 91 items were analyzed.

Results

In contrast to the dramatic results achieved by *Get in the Loop — Buy Recycled*, no difference was found in comparing the purchases of the four groups. Several lessons were learned from these results.

First, there was a lack of awareness of the campaign. A stronger promotional campaign, as used by *Get in the Loop*, would likely have improved the impact of the program.

Second, about one third of the shelf talkers were knocked off the shelves during the two-week period, making it impossible for shoppers to identify and locate the targeted items. Smaller shelf talkers fastened more securely to the shelves would have been less likely to be removed by passing shopping carts.

Third, shoppers were offered too few products to allow them to consistently choose waste-reducing alternatives. It appears to be important that more items be identified.

Finally, the video and commitment portions of the campaign were held on a Saturday, because organizers thought they would gain maximum exposure on a busy day. However, it turned out that it was difficult to recruit participants in the overcrowded entrance to the store.

Case Study

Zehr's

Contact

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A Locater Guide for Packaged Programs

The following programs, illustrated in the Case Studies section, are "packaged" and ready for use. For additional information about particular programs, see the contact information provided in the case study referred to.

Program	Program Summary	Case Study in this Workbook
Bike Smarts	teaches children bicycle safety and encourages bicycle use	*Bike Smarts*
Journey for the Earth and the Community Lifestyles Campaign (GAP)	helps children (Journey for the Earth) or groups of neighbours (Community Lifestyles Campaign) to adopt "green" habits	*Global Action Plan (GAP)*
Green Home Visit	helps householders save energy and water, reduce pollution, and adopt ecologically appropriate practices	*ReCAP*
In Concert With The Environment	teaches students in grades 6-12 and their families about careful use of resources, particularly energy and water use.	*In Concert with the Environment*

A Locater Guide for Tools of Change and Case Studies

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Tools of Change

Case Studies

Page number

Case Studies by Topic Area

Page number

Case Studies in Canada

Case Studies in the United States

Quick Correspondence Form

Use this form to:

- request further information and assistance
- suggest case studies or other additions and revisions
- provide us with your comments on the Workbook

Send your completed form to: Jay Kassirer, Cullbridge™ Marketing and Communications, 61 Forest Hill Avenue, Ottawa, Ontario, Canada K2C 1P7; E-mail: kassirer@cullbridge.com; Fax: (613) 224-3377.

Your Name: _____
Organization: _____
Position: _____
Street Address: _____
City, Country, Code: _____
Telephone: _____
Fax: _____
E-mail: _____

I want more information on:

- ❑ customized workshops and other training programs for staff and/or stakeholders
- ❑ ongoing support options (including opportunity identification, learning from other programs/research, coaching, project management, and reviewing of plans)
- ❑ related Web sites

Please keep me updated:

- ❑ add me to your database and advise me of significant advances and upcoming workshops

I suggest you add this case study

Name of program: _____

Program contact: _____
Your Name: _____
Organization: _____
Position: _____
Street Address: _____
City, Country, Code: _____
Telephone: _____
Fax: _____
E-mail: _____

Short description (one paragraph is fine):

_____
_____
_____
_____
_____

Quick Correspondence Form

Please check off the Tools of Change illustrated by your proposed case study. You are also welcome to propose new tools.

- ❑ Building Motivation Over Time
- ❑ Feedback
- ❑ Financial Incentives and Disincentives
- ❑ Home Visits
- ❑ Mass Media
- ❑ Neighbourhood Coaches and Block Leaders
- ❑ Norm Appeals
- ❑ Obtaining a Commitment
- ❑ Overcoming Specific Barriers
- ❑ Peer Support Groups
- ❑ Prompts
- ❑ School Programs that Involve the Family
- ❑ Vivid, Personalized Communication
- ❑ Word-of-mouth
- ❑ Work Programs that Influence the Home
- ❑ Other (please describe)

Results achieved:

Feedback on the Workbook

We hope this Workbook has been of assistance to you. Please let us know how it has helped, and what else may help you in the future. Thank you for your comments!

WORKBOOK